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ABSTRACT

Designed for use in teaching a clothing service program, this clothing service guide is suitable for use with students in vocational education for the handicapped (VEH) programs and with mainstreamed special education students in other occupational home economics programs. The first section deals with various aspects of home economics VEH, including characteristics of VEH students, facilities and equipment, program planning, teacher responsibility, curriculum planning, resources, classroom instruction, laboratory experiences, and utilization of class output. Provided next are five units of instructional materials on the following topics: sewing tools and equipment, basic sewing skills, garment construction, alterations and repairs, and laundry procedures. Each section is organized around necessary competencies and includes vocabulary, behavioral objectives, learning and evaluation activities, teaching aids, and a learner progress record. (A related food service guide is available separately--see note.) (MN)

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VOCATIONAL EDUCATION FOR THE HANDICAPPED

CLOTHING SERVICE GUIDE

Materials Developed and Distributed by

Home Economics Instructional Materials Center
Texas Tech University
Box 4067
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CE 031 635

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Directed by

Texas Tech University
College of Home Economics
Department of
Home Economics Education
Lubbock, Texas

In cooperation with

Texas Education Agency
Department of Occupational
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Homemaking Education
Austin, Texas

MAY 1980

DESCRIPTION OF
HOME ECONOMICS INSTRUCTIONAL MATERIALS CENTER

The Home Economics Instructional Materials Center was established September 1, 1967, as a cooperative porject between the Division of Homemaking Education, Texas Education Agency, and the College of Home Economics, Home Economics Education Department, Texas Tech University at Lubbock, Texas. The Center is one of five curriculum centers in four locations which make up the Texas Instructional Materials System.

The instructional materials developed at the Center are intended to assist teachers and coordinators in promoting and teaching home economics in the following program areas:

Homemaking Education (Useful)
Home Economics Cooperative Education
Home Economics Pre-Employment Laboratory Education
Home Economics Vocational Education for the Handicapped

The homemaking education staff at Texas Education Agency, home economics teachers across the state, teacher educators, subject matter specialists, and advisory councils of business and industry representatives participate in the development of each publication. The Center staff coordinates the development of the instructional materials.

Special acknowledgment is given to the following persons for their roles in the continuing operation of the Center:

> Mrs. Elizabeth Smith, Director, Division of Homemaking Education, Texas Education Agency, who conceived the original plan for establishing the Center and continues to determine ways in which the Center can meet the needs of Homemaking Education in Texas. Mrs. Pat Lindley, Coordinator, Vocational Curriculum, Texas Education Agency, who coordinates the activities of the five instructional materials centers in Texas.
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> Dr. Donald Longworth, Dean, College of Home Economics, and Dr. Camille G. Bell, Chairperson, Department of Home Economics Education, Texas Tech University, who serve the Center in an advisory capacity.

Linda Glosson, Director
Betty Robinson, Associate Director
Rella Peterson, Assistant Director

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The *VEH Clothing Service Guide,* prepared by the Home Economics Instructional Materials Center at Texas Tech University is the result of the combined efforts and ideas of many people, namely:

Participants in the 1978 VEH Workshop who submitted curriculum materials.

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PREFACE

Recent federal legislation has placed greater emphasis on insuring the right of handicapped persons to a free and equal education than ever before. The legislation pertains to civil rights in education, vocational preparation, and job placement and promotion. Specifically, the laws provide a basis for the development of educational programs for the handicapped.

The Vocational Education for the Handicapped (VEH) program is one means available for providing vocational education for the students with special needs. The VEH program is designed to provide vocational education preparing students for gainful employment and to provide students with a vocational curriculum that departs from traditional content and methods. The program is intended for students with exceptional handicaps who cannot succeed in regular vocational programs. Only students eligible for special education are eligible for Vocational Education for the Handicapped.

The program has the following purposes:

1. To provide students with vocational education preparing them for gainful employment in jobs requiring entry-level knowledge and skills.

2. To provide students with vocational curriculum that departs from traditional content and methods of teaching at a level where students can succeed.

VEH Clothing Service Guide is designed for use in teaching the clothing phase of a general home and community services program or in teaching a clothing services program. Although the materials were designed specifically for VEH programs, they should also be useful to teachers of mainstreamed special education students in other occupational home economics programs.

The following concepts are included: sewing tools and equipment, basic sewing skills, garment construction, alterations and repairs, and laundry procedures.

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HOME ECONOMICS VOCATIONAL EDUCATION FOR THE HANDICAPPED

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Clothing Service Guide

Home Economics Vocational Education for the Handicapped is an occupational program which helps special education students prepare for the world of work. Training related to clothing service occupations may be provided in either a Clothing Service program or a Home and Community Service program. When students in the program are judged employable, they may be placed in actual jobs under the supervision of a Vocational Adjustment Counselor. However, students must remain in the program a minimum of one year before being placed on a job. If students are unable to perform successfully they may be returned to the program for additional training.

In order to successfully train students for employment in entry-level positions, the clothing service or home and community service program should include instruction in various competency areas of clothing-related occupations. The list of competencies and sub-competencies is included in the Learner Progress Record on p. 381.

Many career opportunities for handicapped students exist in the area of clothing production and services. Laboratory experiences and classroom instruction in the VEH program are designed to provide students with knowledge and skills needed for gainful employment in these areas. These experiences are conducted in a commercially equipped clothing service laboratory.

Description and Characteristics of VEH Students

The definition of the term "handicapped" utilized in recent legislation regarding education is as follows:[1]

> The term "handicapped children" means those children evaluated (in accordance with regulations that insure appropriate student placement)[2] as being mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, orthopedically impaired, other health impaired, deaf-blind, multi-handicapped, or as having specific learning disabilities, who because of those impairments need special education and related services.

A broader definition of "handicapped" is given in Section 504 of the Rehabilitation Act of 1973 (P.L. 93-112). This definition of handicapped includes any person who has a physical or mental impairment that substantially limits one or more major life activities such as caring for one's self, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning, and working.

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[1] Education of the Handicapped Act: Part B as amended by the Education for All Handicapped Children Act of 1978 (Public Law 94-142) and the Vocational Education Act of 1963 as amended by the Education Act of 1976 (Public Law 94-482).

[2] The phrase in parentheses is an interpretation of the exact wording of the definition which refers to parts 121a.53-121.543 of this legislative act. For exact wording, refer to the specified part of the act.

Students in each of the eleven categories of handicaps identified in the Education for All Handicapped Children Act may be characterized as follows:

1) *Deaf* – a hearing problem that causes the student to do poorly in school. The student may find it hard to understand speech either with or without a hearing aid or device.

2) *Deaf-blind* – a combined hearing and sight problem that causes the student to do poorly in school. The student's problems are such that programs designed only for deaf or blind students are not suitable.

3) *Hard of hearing* – a permanent or varying hearing problem that causes the student to do poorly in school. This includes students not included in the definition of "deaf."

4) *Mentally retarded* – a definite below-average ability to think and to reason that causes the student to do poorly in school. Students who are mentally retarded may develop behavior problems early in their lives, during a time of rapid growth and development.

5) *Multi-handicapped* – a combination of handicaps such as mentally retarded-blind that causes the student to do poorly in school. Programs designed just for one of the handicaps does not meet the needs of students classified as multi-handicapped. This category does not include deaf-blind students.

6) *Orthopedically impaired* – a deformity of the skeleton that causes the student to do poorly in school. This term includes impairments present from birth and those caused by disease or accident. Some examples include clubfoot, amputations, cerebal palsy, and polio.

7) *Other health impaired* – limited strength, energy, or alertness due to chronic or severe health problems that cause the student to do poorly in school. This category includes such health problems as heart conditions, tuberculosis, rheumatic fever, diabetes, asthma, sickle cell anemia, hemophilia, epilepsy, and others.

8) *Seriously emotionally disturbed* – defined in two parts as follows:
   a. A condition occurring over a long period of time and to such a degree that the student does poorly in school. The condition may reveal one or more of the following characteristics:
      –Lack of ability to learn which cannot be explained by other factors (intellectual, sensory, or health).
      –Lack of ability to get along with teachers and peers.
      –Display of behaviors under normal situations that are not appropriate.
      –General, overall unhappiness or depression.
      –Tendency to show physical signs or display fears related to school or personal problems.
   b. This term also includes students who are schizophrenic or autistic. It does not include students who have made poor social adjustments unless these students are seriously emotionally disturbed.

9) *Specific learning disability* – a mental learning disorder that causes the student to do poorly in school. The student may find it hard to understand and use spoken or written language. This term includes such conditions as brain injury and dyslexia. It does not include students with learning problems that result from hearing, sight, or motor handicaps; or from mental retardation; or from certain disadvantages.

10) *Speech impaired* – a speaking problem that causes the student to do poorly in school. Included in this category are stuttering and voice or language impairments.

11) *Visually handicapped* – a sight problem even with correction, that causes the student to do poorly in school. This category includes both blind students and those with partial sight.

More specific descriptions of these and related handicaps are given in Chapter V of the *VEH Handbook* (available from the Home Economics Instructional Materials Center).

Facilities and Equipment

The facility should meet approval of the Texas Education Agency Vocational Homemaking Education staff members. Suggested floor plans are available from Homemaking Education staff members. The facilities and equipment should be planned with the needs of physically handicapped persons in mind. The staff members are available to assist with planning facilities and equipment for home economics vocational education for the handicapped.

Equipment lists for approved programs of home economics vocational education for the handicapped may also be secured from Homemaking Education staff members, Texas Education Agency. Equipment funded through the Texas Education Agency must comply with the approved lists and be identified according to Agency regulations.

Program Planning

Effective program planning for the VEH program in the local community involves (1) understanding of the VEH student, (2) understanding the vocational skills needed for employment, and (3) cooperative planning.

Understanding the VEH Student

Program planning should be based on the needs, interests, backgrounds, abilities, and levels of motivation of the students in the program. In planning for VEH students, the teacher should keep in mind the following:

1) View each handicapped student as an individual.
2) Determine areas in which students can develop abilities.
3) Focus on strengths rather than weaknesses of students.
4) Realize that handicapped students are capable of learning a variety of skills.
5) Develop realistic objectives for students to experience achievement and success.
6) Progress gradually toward higher levels of objectives and increased achievement.
7) Expand the levels of objectives to include experiences in all domains of learning.
8) Remember that the goal for each student should be employability.
9) Keep abreast of employment opportunities in the community.

Understanding Vocational Skills Needed for Employment

Planning and carrying out an effective VEH program requires that the teacher understand the labor market in which students will find employment. A study of job trends, job descriptions, pay scales, and opportunities for advancement should contribute to this understanding. Such a study involves determining home economics-related jobs available in the local community and in nearby communities, and getting acquainted with employers and employees in these jobs. It also involves constant study to learn procedures acceptable in various job situations, skills and attitudes needed for employment, and changes taking place in the field.

Task analysis is a useful strategy in developing curriculum for VEH students. The goal of task analysis is to produce a sequence of steps that build to accomplishment or mastery of a skill. A task statement describes what is to be taught and assessed but does not prescribe methods of teaching or assessing. A basic outline of how to conduct a tasks analysis is given below:

1) Determine the behavioral objective you want students to achieve.
2) Review resources that pertain to the objective.
3) Distinguish the component steps of the objective.
4) Sequence the steps in a logical order.
5) Analyze the steps and eliminate repetitive or unnecessary steps.
6) Determine prerequisite skills or knowledge needed.
7) Evaluate student progress.
8) Alter the tasks and sequences as needed.

Cooperative Planning

Planning the VEH program cooperatively with students, parents, social workers, psychological personnel, employers, and others in the community should result in more effective learning and better curriculum than would be possible in a program designed by the teacher alone. Cooperative planning among the teachers working with the VEH student is necessary for a successful VEH program. Professionally trained persons including the school principal, other homemaking teachers, teachers in other subject areas, guidance personnel, special education supervisors and teachers, the vocational adjustment counselor, and local and area supervisors also provide important contributions to program planning. The teachers should be involved with these persons through involvement in the Admission, Review, and Dismissal Committee which places students in the VEH program, the Advisory Council established for the program, and public relations efforts in the school and community.

Teacher Responsibilities

Since VEH Clothing Service and Home and Community Service programs are designed to prepare students for entry-level positions in clothing businesses and industry, laboratories should simulate actual job situations. To achieve such a situation, the VEH teacher must assume the appropriate management role(s)–plant supervisor, cutting room supervisor, sewing room foreperson, head alterationist or clothing repairer, etc. Proper planning, efficient execution, and adequate evaluation are essential in order to insure successful learning experiences. The following is a brief synopsis of the VEH teacher's duties in relation to operating the Clothing Service program or portion of the program.

Project Planning

Planning must involve deciding what projects will be carried out in the laboratory. As students begin their training, simple, but realistic, projects can be used to help them gain both skills and confidence. The difficulty of projects should be increased gradually as student's abilities permit until they reach the level needed for employability. Planning also involves determining utilization of class output, including both products and services.

Pattern Development

For assembly line projects, patterns must be developed which provide learning experiences needed by students at a particular point in their study. Patterns should also be developed to utilize the desired number of workers in their construction.

Procurement of Supplies

Supplies for the laboratory can be obtained more easily when the VEH teacher gains awareness of possible sources. Once the possibilities are known, projects can be planned and needs determined for specific quantity and quality of items. In the case of donated fabrics and trims, pattern development must be based on the materials available, then any additional supplies secured. Purchasing procedures for laboratories vary according to school policy and locale.

Detailed Planning of Production and Services

Every project must be planned to fit into scheduled laboratory units. Production time must be carefully estimated to insure that items are ready when needed. Plan clothing production and service activities for students which realistically duplicate those required in clothing businesses and industry. As students gain skill and confidence, they should be required to meet deadlines and experience normal pressures which exist in clothing production and service job situations so that they will be better prepared for future employment. Plan each project in detail. Double check to be sure the number of people with the skills required and the physical facilities and equipment to carry out the project efficiently and effectively are available. For students with extremely limited abilities, the teacher may have to make the decision to train some students only in competencies related to one or two job titles such as industrial sewer or clothing repair worker, rather than in a number of unrelated competencies, so these students will be employable.

Provide learning experiences related to any new skill. Allow sufficient time for students to become proficient prior to full-scale production activities. Early in the year, projects should be kept simple. Increase difficulty as students gain skill and confidence.

Supervision of Production and Services

The responsibility of supervising students while clothing construction and service projects are under way in the laboratory involves many activities. Students must be trained to perform as they would on the job. While providing instruction for students, the VEH teacher must also supervise activities so that the laboratory provides realistic experiences. VEH students may need learning aids such as color coding or equipment or procedure adaptations as they begin their training. However, insofar as possible the use of such aids should be minimized or eliminated as training progresses, so that students learn to work in a realistic situation under realistic job pressures.

Clean-Up

Thorough clean-up is a must for efficient operation of the laboratory or on the job. However, by clean-up time, workers are tired and are faced with perhaps their least favorite task. Preparing and following a detailed cleaning schedule in VEH laboratory work aids in the efficiency and effectiveness of clean-up procedures. Such planning will pay dividends in both a cleaner facility and happier workers. Jobs in any area of clothing production or service include housekeeping tasks, so including such tasks in laboratory work provides realistic training for actual job situations.

Evaluation

A continual plan of laboratory evaluation is essential in order to run an effective clothing service operation and to train students. When undesirable events occur in the laboratory, the teacher and students must try to discover why they happened and what can be done to prevent their occurrence in the future. Evaluation can also generate valuable ideas for improvement.

Public Relations

The responsibility to "sell" the services offered by the VEH Clothing Services laboratory rests squarely on the shoulders of the teacher. A good public image goes a long way in creating sales, providing quality work and products are offered. The entire image of the program may well depend on what the public sees when they come for fittings, to purchase from the laboratory's boutique, etc.

Training for Job Success

When training students in the laboratory, emphasis should be placed on the need for workers to follow specific procedures as instructed by supervisors. Every clothing manufacturer or clothing-related business has its own methods and specific procedures for performance of required tasks. People hired (even the experienced) must be taught how to do things according to the established procedures of the particular business or manufacturer. A worker's willingness and ability to follow directions is a key to success on the job.

Problem Solving and Decision Making

In all phases of operating the laboratory, the teacher is called upon to evaluate problem situations and make decisions regarding them. There is rarely one best solution for any problem. Frequently, problem solving and decision making is done within drastically limited time. It is inevitable that some mistakes will be made. Thinking carefully through the steps in the decision making process helps one to view the situation more clearly. Consideration of the various advantages and disadvantages involved in solving a problem in different ways may also indicate directions to take in decision making. In the VEH program, problem solving and decision making are easier when the teacher knows as much as possible about the strengths and weaknesses of the students enrolled. Continuous communication with other persons working with the students can be an important aid in problem solving and decision making.

The VEH Clothing Service teacher has a great deal in common with managers and supervisors in apparel factories, clothing service buisnesses, and retail clothing stores. All must decide on the final product or service desired, plan production, teach personnel how to produce the end product or service desired, and evaluate the final production or service, personnel, and procedures used to achieve it. The VEH teacher will place emphasis on training and evaluating the students. The manager or supervisor will look more at the process and the final product or service with an emphasis on costs and may use such evaluation to determine whether a particular worker is given a promotion or is fired.

Curriculum Planning

Curriculum planning for the VEH program involves analyzing the jobs in which students may become employed, identifying the occupational terminology essential for employment, determining the concepts and information which must be taught, establishing behavioral objectives for students, selecting appropriate learning experiences to help students reach identified objectives, and planning ways to evalute student learning.

Job Analysis

Curriculum planning should be based on identification of the tasks which are performed and competencies needed by workers in the types of jobs for which students are being trained. A basic source of information regarding the tasks performed in various jobs is the *Dictionary of Occupational Titles.* Local employers are another source of information regarding workers' duties in specific jobs. Books and periodicals used in the industry can also provide insight into the tasks assigned to certain employees.

Working closely with local employers can aid the teacher in learning what adaptations in work assignments, equipment, and procedures employers are willing to make for workers possessing various physical and mental handicaps. This information is essential in helping VEH students become employable for actual job situations. Although special adaptations may be useful during initial training to help students gain confidence, as the student's skills increase, adaptations which cannot be carried into an actual job situation should be eliminated.

Vocabulary

Words which the student must be able to use correctly to succeed in an employment situation should be included as a part of instruction in the VEH classroom. Students should be taught to use occupational terms in the same form they will be used on the job. Many words which must be used correctly orally to communicate with other employees, are never used in written form on the job. Even students with limited reading ability, however, should learn to recognize words essential to their safety, such as "danger," "caution," "exit," and "fire extinguisher."

Concepts and Generalizations

Curriculum planning should be based on the concepts and generalizations which are essential to the student's employability. Concepts which have been achieved by regular students of the same age, may need to be included in the VEH curriculum due to the limited experiences of many VEH students. Providing a variety of learning experiences appealing to as many senses as possible aids students in developing the concepts needed for employment.

Behavior Objectives

Meaningful goals are established for both the teacher and VEH students by behavior objectives. A behavioral objective is measurable behavior that is expected to result from successful completion of designated learning experiences. Including objectives in the cognitive, affective, and psychomotor domains helps to insure overall development of the student's employability. Objectives are useful means for making progress more visible to the student, teacher, parents, and others involved in the VEH student's education.

Learning Experiences

Learning experiences should be selected to enable the VEH students to achieve the behavioral objectives necessary for employability. More students can be reached when a variety of experiences are provided for learning by seeing, hearing, feeling, and doing. In developing the learning experiences, care should be taken to use instructional techniques appropriate for the learning characteristics exhibited by the students in the class. Recommended teaching techniques for students with various learning characteristics are included in pages 71-73 of the *VEH Handbook* (available from the Home Economics Instructional Materials Center).

Evaluation

Evaluation determines the extent to which a group or class has achieved behavioral objectives and indicates the effectiveness of the teacher and the curriculum. Effective evaluation is a continuous process which involves determining behavioral objectives, collecting evidence on behavioral changes, interpreting the evidence collected, and using the evidence to improve the curriculum, teaching, and guidance. Methods of evaluation include pencil-and-paper tests, oral tests, performance tests, check sheets and inventories, score cards, rating scales, behavior records, and observations.

A variety of procedures and techniques should be used to obtain the data and information necessary to make an evaluative judgment. The evaluation technique that is best for one student may not be best for another. The type of evaluation used will depend upon the particular mental and physical handicaps of the students.

Resources

Using all available resources wisely will help the teacher run a smooth and efficient classroom and laboratory. Resources available to the teacher include:

1) *Instructional Materials* – The *VEH Clothing Service Guide* provides the framework for class and laboratory instruction in clothing production and services. The guide is divided into concepts which cover specific competencies and subcompetencies needed for employment. For each subject area, objectives, and learning experiences are provided as an aid in planning class instruction and laboratory experiences. Teaching aids following each subconcept are useful to the teacher in class instruction. Progress charts for each subconcept can be reproduced to aid the teacher in recording each students' progress. The progress summary can be completed yearly as an aid in communicating with others regarding each student's progress. These tools should be useful in working with the Admission, Review, and Dismissal Committee, the Vocational Adjustment Couselor, special education and academic teachers, other professionals, and parents regarding each VEH student's progress in the VEH Clothing Service or Home and Community Service program.

   Various clothing-related textbooks and references are available which will aid in planning and implementing the instructional program. Free instructional materials may be available from textile producers, apparel manufacturers, equipment manufacturers, and trade associations. The reference list accompanying the *VEH Clothing Service Guide* suggests a variety of references for the teacher. When student materials at a low reading level are available, they are designated with the identified reading level.

   Texts and reference materials in some aspects of clothing production and service are extremely limited, particularly those with low reading levels. In many areas of instruction the teacher will find it necessary to develop her or his own teaching materials. The particluar handicaps of students enrolled in the VEH program may dictate the nature of these materials. However, to make materials useful over the long range, it may be desirable to incorporate some characteristics which are not needed by currently enrolled students. For example, it would be wise to develop visuals with bold lines and large lettering which can be easily read by a student with limited vision, even though such a student is not currently enrolled in the program.

   A skilled teacher will make liberal use of merchandise samples, slides, transparencies, charts, industry materials and other visual aids to illustrate and visualize the concepts being taught. Again, these must usually be collected and/or prepared by the individual VEH teacher with consideration given to the handicaps possessed or which might be possessed by students enrolled in the program. In addition, the teacher may find it necessary to develop his/her own training films to supplement those available commercially. Be sure to update such material regularly in order to keep them current.

2) *Advisory Council* – An advisory council is essential to obtain information and advice needed for effective planning and operation of the VEH Clothing Services or Home and Community Service program. Advisors might include persons at different levels of employment representing industry, trade association, related business and industry, and where appropriate, labor organizations in the community. Persons who are known to hire the handicapped would be particularly helpful because of their commitment to working with such persons and because of their experiences in solving problems encountered in training handicapped employees, in adapting facilities, equipment, and procedures to meet the needs of handicapped workers, and in encouraging others to accept handicapped employees. Members of the advisory council might include the owner or manager of an apparel shop, an employee from a clothing factory, alterationist, a laundry or dry cleaner employee, or a custom sewer. Such individuals can provide valuable input and may be sources of providing jobs for VEH students in the future. In many cases they may be helpful in securing donations of instructional equipment and materials, in providing assistance and facilities for field trips, and in identifying and obtaining instructional materials. Advisors should also include students, parents, and school administrators.

Class Instruction

Class instruction should be designed to help students gain knowledge of apparel business or industrial operations, how factories and businesses function, and the apparel worker's place in the world of work. The *VEH Clothing Service Guide* should be used to establish a general plan for classroom instruction. It includes classroom and laboratory learning experiences and objectives which should enable the students to achieve the competencies needed by an entry-level clothing service worker.

Laboratory Management

Management of the VEH Clothing Service laboratory entails a variety of concerns including sources of instructional supplies, training, methods, quality control, recognition of quality performance, safety, sewing machine adjustment and repair, and planning laboratory projects.

Sources of Supplies

In apparel production, it is imperative that students have a constant supply of fabric available for practice. To reduce the cost of these supplies, the following suggestions may be useful:

1) Donations of fabrics and other supplies, such as trimmings and notions, for student use may be obtainable from local apparel manufacturers or textile mills.
2) From the community, the VEH teacher may be able to obtain donations of clothing, fabric, and notions.
3) Defective products and flawed fabrics can be purchased inexpensively from apparel factories and textile mills.

4) Discounts on fabrics and notions may be available when:
    a) purchase is for a school project.
    b) quantities are large.
    c) bolt ends or remnants are purchased.
    d) flawed fabric is purchased.
    e) out-of-season fabrics and notions are purchased.
5) Bargains may be found at end-of-season clearance sales, discount stores, and "going-out-of-business" sales. Caution—be sure you can make worthwhile use of purchases.
6) Unclaimed garments might be donated by local laundry and dry cleaning shops.

Storage

Storage space must be carefully planned for all aspects of the VEH Clothing Service of Home and Community Service program. Space is needed to store equipment, illustrative materials, fabrics, and notions for instructional use. Students also need space to store projects under construction.

Each student should have a tote bag or box for personal supplies. Locked storage for these should be provided. Lock by classes. A wardrobe closet is needed for hanger storage of partially finished garments and garments being repaired or altered.

General storage space should include storage units with shelves deep enough to store rolls of fabric. The most common width for cottons and synthetics is 45 inches and this depth shelves should be adequate for most fabrics. Fabrics that are wider are usually rolled with a center fold and need no additional space. Piece goods should be stored adjacent to the cutting table to save time and energy in handling materials. A wardrobe closet is useful for storing illustrative materials. Shelf space should be planned for tools and equipment needed for demonstrations. A place should be provided for storing spare machine parts for use in minor equipment repairs to be made by the VEH teacher and students. A file cabinet is needed to store instructional materials and program records.

Safety

Common accidents in clothing-related occupations include punctures, shocks, cuts, burns, and falls. Cutting and pressing equipment and sewing machines present the greatest hazards to the worker in the laboratory.

Most handicapped workers have excellent safety records on the job. However, because VEH students, like other vocational students, are inexperienced and lack the knowledge and skills of experienced employees, safety instruction must be carefully integrated into all phases of classroom and laboratory experiences. Special attention should be given to helping individual students find safe ways to perform tasks which take into account their personal strengths and limitations.

Job safety in the use of power machines cannot be overemphasized. Careful training should be provided on the safety rules and regulations required by employers. Documentation should be maintained for all safety training provided. Careful, consistent follow-up is also necessary to insure compliance with safety rules.

The following are important aspects of teaching industrial sewing safety:

1) Direct students to wear simple, tailored clothing with no loose, bulky, or dangling parts which might get caught in the sewing machine.
2) Teach students good posture for sewing to prevent ill health, fatigue, reduced efficiency, and increased possibility of accidents.
3) Require cleanliness, neatness, and orderliness in the laboratory at all times.
    a) Workers should be neat.
    b) Workers should have clean, dry hands to prevent electrical shock (as well as to prevent soiling or damaging the fabrics).
    c) The work surface of the sewing machine should be kept clear.
    d) No food or drinks should be consumed at or near machines and work areas.
    e) Aisles between machines should be kept clear.
    f) The floor should be kept free from oil, water, or other substances which might cause a fall.
4) Observe general sewing safety rules.
    a) Workers should never put pins or needles in their mouths.
    b) Open scissors or other sharp objects should not be placed on the machine.
    c) Workers should be taught to concentrate on the task at hand while operating the power sewing machine.
    d) Students should be taught to hold the plug, not the cord, when disconnecting electric cords.
    e) Carelessness and horseplay should not be tolerated.
    f) Never remove required finger guards from power sewing machines.
    g) Never sew over pins.
5) Keep all equipment in proper working condition.
    a) Equipment needing repair should be reported immediately.
    b) Repairs should be made promptly.
    c) Students or teacher should not attempt to make any adjustments or repairs which they are not qualified to do.
    d) Burned out light bulbs should be replaced promptly. Be sure to keep spares on hand.
    e) The motor should always be turned off when a machine is not in use or when repairs are being made.
    f) Machine should be off when threading the machine, replacing the needle, or changing the bobbin.
    g) Clean machines once a week. Brush out lint each day.
6) Handle emergencies intelligently.
    a) All accidents should be reported and any injury treated, no matter how minor.
    b) Teacher and students should know the locations of switches, plug-ins, and fuses and how to turn off the main switch in case of an emergency.

The reference list accompanying this publication includes several publications on adapting sewing techniques and equipment for persons with various physical handicaps. These references provide many useful ideas for stabilizing fabric and equipment, opening containers, selecting and using tools and equipment, handling equipment, safe carrying, avoiding accidents, and performing various sewing tasks. However, all of these publications are designed to help the handicapped homemaker sew in the home. Although the references are not planned as an aid to the handicapped clothing service worker, many of the ideas will be equally useful in clothing production.

Work with each student to discover the best equipment and procedures for that student's particular handicap. When making equipment adaptations, keep in mind the equipment likely to be available in actual clothing production and service establishments, the cost of the adaptation, and whether the equipment could still be used by other employees. Try to avoid adaptations which are costly or which reduce the usefulness of expensive equipment to other employees. As much as possible, adaptations should be confined to procedures rather than equipment.

Laboratory Experiences

Laboratory experiences permit students to work in a specially designed facility in order to gain actual work experience in clothing production and services. The teacher is responsible for planning and supervising laboratory experiences. Laboratory assignments should be made through use of student work schedules to insure that every student is aware of his/her duties. Student schedules should be designed to insure that each student is assigned a variety of clothing production and service tasks and learns to operate each piece of equipment in the laboratory within his/her capabilities.

The project planned for a particular laboratory experience should be used to determine the number of student workers assigned to specific tasks. Assigning more students than needed should be avoided as it decreases the learning value of the experience and may even cause confusion and hazards in the laboratory. Students not scheduled to participate in a particular laboratory experience may be assigned individual study, observations, or special tasks such as inventorying supplies, or other tasks related to laboratory management.

IMPORTANT

To allow student to gain as much proficiency as possible in the tasks necessary for successful job performance, participation in the laboratory should involve a variety of activities:

1) garment repair
2) alterations
3) cutting production
4) garment assembly

Experiences should result in each student achieving as many of the competencies listed on pages as possible.

Garment Repair

Workers in clothing repair must be familiar with basic hand stitches, and sewing techniques. They must be able to operate the sewing machine and know how to perform the basic repair techniques. Students should be provided opportunities to repair or replace parts of women's, men's, and children's garments. Repairs should include patching, darning, repairing rips, reinforcing seams, and repairing pockets, zippers, and fasteners. Emphasis should be given to use of acceptable techniques and completion of tasks in a minimal amount of time.

Alterations

Students studying alterations should become familiar with the basic techniques of clothing construction. Students should learn the markings and symbols which alterationists use for alteration tags and tickets. Students should learn to make the most common alterations used in clothing businesses including taking up and letting down hems, taking in and letting out side seams, and moving darts.

Cutting Production

Students should survey the many functions performed in the cutting department of an apparel manufacturing organization. The fundamental concepts of marker making, spreading, and cutting should be included in instruction. Fabric utilization and the quality aspects of marker making should be stressed. Students should learn how to properly manipulate fabric for shade and damage control. Students should acquire the basic skill of cutting by hand. The preparation of the cut work for sewing should also be studied. The principles and techniques of sorting, ticketing, and bundling should be discussed, demonstrated, and practiced.

Garment Assembly

Students should become familiar with the basic procedures of garment construction including hand and machine sewing, internal work handling, pressing, and finishing as practiced by the manufacturer. They should learn how to operate different kinds of industrial sewing machines and attachments. If the student later seeks employment as a sewing machine operator, the techniques for operating the basic industrial sewing machines provided in the VEH Clothing Service laboratory can be applied to operation of more highly specialized machines.

The teacher who has not worked in an apparel factory may find it beneficial to train as a sewing machine operator at a local factory. Such training would provide the opportunity to observe training techniques used and to learn factory sewing techniques.

Before training in actual machine sewing operations beginning students should learn to adjust sewing machine chairs to fit their own heights. They should also learn to adjust the machine and the positions of the treadle for comfort.

A high degree of speed is essential to all volume apparel production. Thorough training in the use of the power-driven machine can develop the skill necessary to work at a fast, steady pace required for commercial sewing.

The most common procedures used by apparel factories for training sewing machine operators is as follows:

1) Instruct worker on the parts of the machine and how they are used.
2) Teach how to properly care for the machine.
3) Teach how to thread the machine.

4) Teach operation of the machine with proper coordination of feet and hands, stressing the importance of safe working habits. A slow speed may be used at first to encourage learning proper methods and motions and smooth handling of work. However, speed must be increased as quickly as possible to prevent the worker from becoming dependent on the slower speed. Scraps may be used while the student is learning to control the machine.
5) Teach straight stitching, curving, turning under seams, back stitching, edge stitching, etc. Some companies have trainees begin sewing on paper tracings varying from simple to complex. Others have them use scraps and miscut garment pieces for practice.
6) Use models to show bad stitching and its causes, the causes of thread breaks (such as thread out of tension, needle misplaced, bad needle, etc.).

As the student develops skill, increase emphasis on speed and pace. Emphasize coordination, use of correct methods and motions, and the importance of quality throughout training. Make sure students always observe quality standards. Watch for bad habits as the student starts performing particular operations. Bad habits are much easier to start than to break.

A progress chart may be kept for each student. Should a particular student not be progressing satisfactorily, a stop watch may be useful in identifying the particular element of the job that retards the student's efficiency. For example, the student may be proficient in machine operation but lack skill in material handling. In that case, extra practice may be required in picking up and disposing of work, the two main aspects of material handling. Various hand sewing operations used by apparel manufacturers should also be taught. These techniques are generally the same as those taught for home sewing.

Time-and-energy-saving methods should be used consistently. Methods should be similar to those used in the garment industry. A variety of time-saving techniques should be taught. Time-and-energy-saving techniques should include backstitching or staystitching, stitching without pinning or basting, chaining to keep work connected through a number of pieces, then cutting connecting threads at once, and efficient ripping.

Quality is the degree or grade of excellence achieved in garment construction. What is quality to one manufacturer may be called inferior work by another. The teacher should require excellence while making clear that the exact definition of quality is often related to the price level of the garments produced.

Quality control is based on standards. Standards must be clearly defined in specification form in the VEH laboratory just as they are in industry. Standards must be specified for every operation used in constructing the garment. The following is an example of the quality specifications for the pocket on a man's shirt:[1]

> Inspect for–5½" (+¼") down from neck opening. Side of pocket vertical to side of shirt. 3" (+¼") from edge. Stripes, plaids, checks, or patterns should match (tolerance 1/16"). Uniformly stitched, no puckering, skipped or broken stitches, or raw edges. 20 S.P.I. should lay flat. Stitching 1/32" from edge. 3/8" triangle formed each corner at top.

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[1] *Basic Studies in Apparel Management,* Report No. 2, *Garment Quality Control.* (Great Neck, New York: Apparel Institute Inc., n.d.) pp. 11-12.

In the apparel factory, quality control must be maintained from the first operation in garment production to the last, from the cutting room to the shipping room. The same type of quality control should be used in the VEH Clothing Service laboratory. The following lists indicate the types of control required:[2]

In the Cutting Room

1) Responsibility for Shading of Cloth Before Cutting
2) Exactness of Cutting
   Routine checks should be made of top ply, middle ply, and bottom ply. These checks may be done for every bundle that is cut, or for one bundle out of a lot, or for a bundle out of every ten lots.
3) Size of the Garment
   Finished garments should be measured for conformance to predetermined standards.

In Providing Operator Aids

1) Chart Showing Correct Aids for Each Operation
   What needle, feed dog, and presser foot are required for each operation?
   Have the correct folder, guide foot, or gauge been designated for each operation?
   Are these items performing efficiently?
2) Maintenance Schedule
   Is there a specified maintenance schedule and is it adhered to?
   Are operators instructed as to how and when to clean their machines and the surrounding area?
      Is there a follow-up procedure to check the effectiveness of these measures?

In the Sewing Room

1) Operator Training
   Have the operators been trained to watch their machines for signs of malfunctioning?
   Do operators know and observe good housekeeping rules?
   Do they know what to do when they discover an error?
   Do they know and follow the correct sewing method?
2) In-Process Inspection
   Has an appropriate level of inspection been established for each operation?
   Is an appropriate form utilized for recording inspection findings?
      This information can aid in identifying students who are making frequent errors and enable the teacher to work with the student to improve.
   Are all repairable garments returned to the responsible operator?
   Are garments given a final inspection?

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[2] *Basic Studies in Apparel Management,* Report No. 2, *Garment Quality Control.* (Great Neck, New York: Apparel Insitute Inc., n.d.) pp. 12-16.

In the Pressing Room

1) Quality Control Room
   Is a quality control report made on pressing tasks?
2) Rejection of Sub-Standard Garments
   Do pressers reject garments which do not meet quality standards?
3) Pressing Standards
   Do pressers observe quality standards for pressing tasks?
   Does the pressing department maintain its own quality control?

In the Shipping Room

1) Rejection of Sub-Standard Garments
   Do boxers or packers reject inferior garments?
2) Packing Standards
   Does shipping room maintain quality standards for packing?
   Does someone check to be sure standards are maintained?

For many factory workers, as operation time decreases earnings increase. However, incentives other than monetary ones are often used. Many factories offer prizes and praise for good performance. Colored flags, stars, or charts are one form of recognition frequently used by apparel manufacturers. Special clubs, privileges, and rewards may also be used. VEH students might become eligible for membership in the President's club for above average performance. Other incentives might include football or theater tickets, or some special privilege. The possibilities are endless.

It is a valuable learning experience for students to help set their own production goals. Resulting rewards are then more meaningful.

All maintenance begins with basic cleaning on a regular basis. However, students should also learn to recognize signs that a sewing machine needs adjustment or repair. They should learn to make simple machine adjustments generally required of sewing machine operators. The sewing machine operator is not a mechanic, however. Students should be taught which adjustments or repairs they should attempt themselves and when the service representative should be called.

Thorough instruction should be given for all adjustments and repairs students are expected to make with particular emphasis on safety. Students should never attempt to make a repair or adjustment they have not been trained to do.

Students should learn and practice internal work handling techniques used by apparel manufacturers. Basic instruction should be given on the storing, dispatching, and supplying of work in process, and the supplying of equipment and trimmings for work in process.

Students should be taught the importance of pressing in garment assembly. They should learn how to maintain and operate commercial pressing equipment. Instruction should be given on both hand irons and various types of pressing machines. A variety of pressing machines can be observed on field trips to laundry and dry cleaning establishments and apparel factories. Emphasis should be placed on means of obtaining quality pressing.

Instruction should include an introduction to the principles and techniques of garment finishing including trimming, ticketing, folding, pinning, and packaging. Emphasis should be placed on developing manipulative skill in these job tasks.

Utilization of Class Output

In order to make laboratory experiences as realistic as possible, ways to utilize class output must be planned. Because the repair and alteration aspects of the program depend on work supplied by customers, the teacher must make special efforts to secure the work necessary to fulfill program objectives. Products of assembly line production units must be made available to the public in order to create a regenerating fund to provide the necessary materials to continue to provide industry-related work experiences. The local advisory council should be consulted in decisions relating to utilization of class output in order to avoid competition with local businesses and industries.

Repair Services

During the unit on repairing clothing, a repair service might be offered twice a week. Little advertising should be necessary if changes are minimal. Students could gain experience marking garments for repair and in making a variety of repairs in accordance with their skills.

Other sources of garments needing repair might be a local children's home or state school, school athletic uniforms, day care centers or charitable organizations. The VEH laboratory could provide a valuable service to these groups by making repairs through their voluntary program.

Alteration Services

Word-of-mouth may be sufficient to attract alterations customers if charges are reasonable. In some situations it may be necessary to advertise the availability of alteration services. After Christmas might be a good time to offer alteration services. Begin with very simple alterations and increase the scope of services as students gain skill.

Clothing Exchange

Clothing exchanges can be established for such items as maternity clothes or children's garments. A small fee may be charged for participation in the exchange. Participants are then entitled to exchange one garment for another. For example, a mother might exchange one set of her child's clothing for a set in a bigger size. The initial collection of garments to start the exchange may be obtained through donations. The donated or exchanged garments should be laundered, repaired, and sized. Garments can even be fitted and altered for the intended wearer.

Contract Work

Contract work may be secured to provide assembly line production experiences. Suggested items might include artist's smocks, shop aprons, choir robes, uniforms, pep squad uniforms, P.E. uniforms, "pennies" for gym classes, aprons for cafeteria workers, or costumes. Fabric and notions could be purchased either by the school or by the contractor.

Consignment

Items produced by the VEH program could be sold on consignment by a local store at or slightly above cost.

Boutique

Products of apparel production units can be made available to the public through an in-school boutique. Items purchased by customers could even be altered by VEH students to provide additional learning experiences.

Contents of the Guide

In this guide the following format is used for each major concept:

Concepts

Several major concepts related to clothing services are developed in this guide. No attempt has been made to determine the order in which the concepts and sub-concepts should be taught. It is felt that this order will vary considerably from one VEH class to another depending on such things as students' abilities and interests, time the class meets, projects chosen, equipment available, and the teacher's own experience, interests, and abilities.

Sub-concepts

Several sub-concepts are needed to develop each major concept. Competencies, words to know, objectives, and learning and evaluation experiences are used to develop each sub-concept. The sub-concepts are developed as follows:

Competencies: The major abilities needed by the student to succeed in clothing service occupations are listed at the beginning of each topic.

Sub-Competencies: Related sub-competencies are given for each major competency. The sub-competencies provide a more detailed description of the abilities needed for employment.

Words to Know: Including the key words in each concept aids the teacher in building the students' vocabulary related to clothing services. Knowing these words is essential to learning the material presented and to communicating on the job.

Behavioral Objectives: Outcomes which should result from successful completion of the learning and evaluation experiences are given as behavioral objectives. The letters in parentheses at the end of each objective key the objectives to the domains and levels of learning as follows: Cognitive Domain–Knowledge (C-K), Comprehension (C-C), Application (C-Ap), Analysis (C-An), Synthesis (C-S), Evaluation (C-E); Psychomotor Domain–Perception (P-P), Set (P-S), Guided Response (P-GR), Mechanism (P-M), Complex Overt Response (P-COR); Affective Domain–Receiving (A-Rec), Responding (A-Res), Valuing (A-V), Organization (A-O), Characterization (A-C). When objectives in more than one domain might be written for a learning experience, only the domain most closely related is used. Because such overlapping is particularly true at the lower levels of the three domains, only objectives in the cognitive domain are included at these levels. When objectives at more than one level might be written for a learning experience, only the higher objective is given. In the VEH program, the teacher must assume responsibility for determining the highest level objectives each student is capable of reaching.

Learning and Evaluation Experiences: Suggestions are provided through the learning and evaluation experiences for ways each concept might be taught using a variety of teaching methods and techniques. Many of the suggested experiences may be used to evaluate the student's progress toward objectives. When information was available on making adaptations to accomodate various handicaps, it was included in the appropriate learning and evaluation experiences.

Teaching Aids: Following each sub-concept are directions for transparencies, posters, bulletin boards, flannel boards, instant slides, and other visuals; suggestions for simulation games, case studies, skits, and stories which may be used in carrying out the suggested learning experiences in the lesson. References to suggested visuals and teaching learning materials following each sub-concept are clearly identified.

Learner Progress Record: A useful way to keep track of each student's progress is the learner progress record. Notes can be kept from the date a concept or competency is introduced until the student reaches the level of proficiency necessary for employment.

How to Use the Guide

The guide is presented by concepts, rather than units, to provide maximum freedom for the teacher to adapt the materials to the local situation. The material is not designed for use in any particular community. The teacher will need to use initiative, imagination, and creativity in working cooperatively with students, parents, employers, school, and community to develop an effective VEH program.

The teacher is not expected to use all the suggested experiences given in this guide with one class. The teacher may adapt, supplement, and expand the suggestions in view of the specific needs, interests, abilities, backgrounds, and levels of maturity of the students. The variety of experiences included should enable the teacher to select those teaching-learning experiences that will help the students reach objectives necessary for employment.

The guide emphasizes ways various concepts might be taught rather than include all the information the teacher will need to know to carry out the suggested learning and evaluation experiences. The teacher will find a variety of references included in the reference list accompanying the guide which will aid in becoming knowledgeable in the various aspects of Clothing Services. In addition, the teacher should use *Clothing Assistant*[1] as a primary source of information on the concepts included in this guide.

The major concepts included in the guide are sewing tools and equipment, basic sewing skills, garment construction, alterations and repairs, and laundry procedures. Obviously, the teacher will not begin teaching sewing tools and equipment and proceed through the book. Instead, instruction might begin with basic information on small sewing tools and equipment, hand sewing techniques, and construction of a simple project, like a cross-stitched, fringed scarf. Soon instruction might be given on the domestic sewing machine and its use in constructing simple projects. Additional tools and equipment and sewing techniques can be introduced as they are needed in projects. Projects should be selected to provide practice in the skills being taught. As students gain skill, projects should become increasingly difficult and time pressures should be added to make the experiences realistic.

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[1] *Clothing Assistant*, Teacher Edition. Lubbock, Texas: Home Economics Instructional Materials Center, 1976.

INSTRUCTIONAL MATERIALS

SEWING TOOLS AND EQUIPMENT

Small Hand Sewing Tools

COMPETENCY: Ability to select, store, use, and care for the small sewing tools.

SUB-COMPETENCY: Ability to identify and use small hand sewing tools.

WORDS TO KNOW:
pin
needle
thimble
seam ripper
pin and needle cushion
thread

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Identify small sewing tools (C-K)	State the name of each small sewing tool as the teacher holds it up in front of the class.
	Circle the picture of each small sewing tool on a handout as the teacher calls out the name. (See p. 31.)
	Identify the small sewing tool as the teacher states the name of the tool. Choose the correct tool and repeat its name to the teacher. [NOTE TO TEACHER: Display the tools on a table.]
	State the name of the small sewing tool that is pictured on a flashcard. (See pp. 32-33.) [NOTE TO TEACHER: Mount pictures on cardboard. Laminate or cover with clear adhesive plastic for durability.]
	Match a flannel board figure of a small sewing tool to its name.
	View a transparency of small sewing tools. State the name of each tool aloud. (See p. 31.)
	Identify each tool projected on the wall. [NOTE TO TEACHER: Place the small tools for sewing in an opaque projector. Project the images of the tools on a screen or blank wall.]
Describe small sewing tools (C-C)	Describe how small sewing tools look as they are projected on the wall with an opaque projector.
	Play "What Am I?" State the name of each small sewing tool as the teacher reads a short description of the tool. (See p. 34 for script.) Reverse the game and describe how the small sewing tool looks while another student guesses the name of the tool.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
State how to use small sewing tools (C-K)	Watch demonstrations on how to use a pin, needle, thimble, seam ripper, and pin cushion. How much fabric should you catch with a pin? Where are pins placed in relation to seam allowances? Are pins placed with heads toward the cut edge of the fabric or the other way? Are all needles the same size or different sizes? Where are pins and needles stored? [NOTE TO TEACHER: As the pin cushion that sits on the table may be knocked around, the pin cushion that fits on the wrist may be more helpful to the blind or visually impaired student. A wrist pin cushion can be made from a round pin cushion by sewing a loop of elastic to the round pin cushion.] What do you cut with a seam ripper?
	Choose a small tool used for sewing and state how to use it. What are pins used for? What are needles used for? Why should you use a thimble? What is the seam ripper used for? Why do you have to be careful when using the seam ripper? How can you damage the fabric when using the seam ripper? What is the pin cushion used for?
	Play Small Sewing Tools Concentration. When two cards match, state how to use the tool pictured on the cards. The student with the most pairs wins. [NOTE TO TEACHER: See pp. 35-37 for directions for making cards and playing the game.]
Explain how to use small sewing tools (C-C)	Divide into teams of two. Explain how to use each small tool to your partner and then listen closely as your partner explains to you how to use each tool.
	Explain how to use each small sewing tool into a tape recorder. Play the recording back several times. Is there anything else you can add?
	Select a small sewing tool from the display your teacher has arranged. Tell your classmates how to use the small sewing tool.
Practice using a pin cushion and pins (P-GR)	Place the pins and needles from a box or package into a pin cushion. [NOTE TO TEACHER: Students can use a small magnet to take pins from the box. The magnet can also be used to pick up pins that drop on the table or floor.]
	Stick the pins in the places shown on the handout. (See p. 38.) [NOTE TO TEACHER: The use of pins with ball heads or T-pins would be easier for students with limited hand and finger dexterity to use even though these pins often have a very sharp point. Colored plastic heads make pins easier to see.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Place pins in the pattern piece illustrated on the handout. (See p. 39.) This is how pins should be placed in fabric also. Try to pin a pattern piece onto a piece of fabric. [NOTE TO TEACHER: Additional information on pinning a pattern piece to fabric is on p. 39. Some handicapped students may find it easier to use weights rather than pins to hold the pattern to the fabric.] Use the handout with pins marked on it as a guide. Pin different kinds of pattern pieces onto fabric. (See pp. 40-43 for patterns.) Ask your teacher to check your work. (See p. 44.)
State how to thread a needle (C-K)	Watch your teacher thread a needle. (See pp. 215-217.) [NOTE TO TEACHER: The visually impaired student may find it easier to see the needle's eye if the needle is threaded against a white surface (white paper, contact paper, or fabric.)] How did your teacher hold the needle? Where was the eye of the needle? How did your teacher hold the thread? How did your teacher steady the needle? Did your teacher push the needle toward the thread or the thread through the needle? In your own words, tell how to thread a needle.
Practice threading a needle (P-GR)	Thread a needle following the instructions given by your teacher. [NOTE TO TEACHER: It is suggested that students first thread on an embroidery needle because of the larger eye. Sticking the needle in a padded brick will hold it upright and steady to aid physically handicapped students in threading a needle one-handed. Self threading needles in a large size are easy to thread. The self threading needle can be placed in a styrofoam spool or a cork. This will hold the needle firm. Students handicapped in vision or coordination may find it helpful to use a small needle threader. The needle threader has a small pointed wire loop which is pushed through the needle eye. The loop expands and is easier for the student to thread the needle. When the wire loop is pulled back through the eye of the needle, the needle is threaded. Another method for helping the student thread a needle is to prop a magnifying glass so that both hands can work below it when threading the needle.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Thread a self threading needle and then thread a regular needle using the needle threader. Which method is easiest for you to use when threading a needle?
	Thread needles with different size needle eyes. Practice threading the needle with the largest hole until it is easy for you to thread. Then practice threading the needle with the next largest hole. Continue to practice threading the needles until you thread all the different size needle eyes.
Practice using a needle (P-GR)	Practice pushing a threaded needle in and out of fabric to make various lengths of stitches. [NOTE TO TEACHER: Students should only get the idea of how the needle pulls the thread in and out of the fabric. The thread is not knotted as they are not stitching at this point.]
State how to use a thimble (C-K)	Watch as your teacher places a thimble on the correct finger. On which finger of the sewing hand is the thimble placed? Notice that the thimble should fit the end of the finger snugly but it should not be tight. [NOTE TO TEACHER: If the thimble fits too tight it will cut off circulation; if too loose, the thimble will not stay on the finger.] Where should the small end of the thimble be on the finger? How does the thimble protect the finger? Tell your classmates which finger you will put the thimble on when you are sewing.
	Watch as your teacher demonstrates the correct way to use a thimble. How was the thimble held in relation to the needle? What does the thimble do when you are sewing by hand? Is the side or end of the thimble used for fast work and regular stitching? Is the side or end of the thimble used for slow or thick work?
Practice using a thimble (P-GR)	Attempt to place the thimble on the correct finger of the sewing hand. The thimble may feel strange at first, but with practice you will get used to working with one.
	Practice using the thimble. After placing the thimble on the correct finger, bend the middle finger so that the thimble is at a right angle to the threaded needle you are holding between the thumb and forefinger on the same hand. Use the thimble to push the needle through a piece of fabric being held in your free hand. [NOTE TO TEACHER: Students are to concentrate on using the thimble to push the needle through fabric, they will not be stitching at this point.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
State how to use a seam ripper (C-K)	Watch as your teacher demonstrates the correct way to use a seam ripper for ripping machine stitching. Which point is inserted under the stitch? What cuts the thread? Why should you be very careful when using the seam ripper?
Practice the use of a seam ripper (P-GR)	Try to rip the stitches out of a seam using a seam ripper. Be careful not to cut the fabric. [NOTE TO TEACHER: Use the machine basting stitch to make a 5/8 inch seam allowance on six-inch squares of fabric for students to practice using the seam ripper. As students gain skill using the seam ripper, change from the basting stitch to regular machine stitching. Blind students can learn to use a seam ripper but it would be best to wait and give them this instruction after they are familiar with machine stitching, seam construction, and the differences in fabrics. To use the seam ripper, blind or visually impaired students can place the seam between the thumb and index finger with the seam allowance above the fingers. The thumb nail should cover the machine stitching and will be the guide for the seam ripper. At the end of the seam to be ripped out, the seam is spread open. The seam ripper is held with the free hand. The sharp point of the seam ripper is used to push under the tread. Catch a stitch as close to the thumb nail as possible. The seam ripper is pushed up and away from the fingers holding fabric. The student opens the seam a little, moves thumb to opening and catches the next stitch–the student will be taking out one stitch at a time.]
	Repeat the use of the seam ripper with different seam lengths. [NOTE TO TEACHER: Prepare fabric samples with 5/8-inch seam allowance lengths of 2 to 12 inches. Do not put more than one seam on a piece of fabric.]
Use the small sewing tools with confidence (P-M)	Use a pin cushion at all times to store pins and needles when they are not being used.
	Use pins as needed to pin pattern to fabric, to pin fabric pieces together for sewing, and to make alterations.
	Thread needles as needed for hand sewing.
	Use a thimble when handsewing.
	Use a seam ripper to rip out stitches when sewing mistakes are made, when making garment repairs, when altering garments, and when ripping up old garments, so the fabric can be reused.

WORDS TO KNOW
About Small Sewing Tools
(Teacher Information Sheet)

pin - a short, thin piece of metal with a sharp, pointed end. They are used to hold things together.

needle - a long, thin piece of metal with a sharp end and an opening on the other end to put thread through.

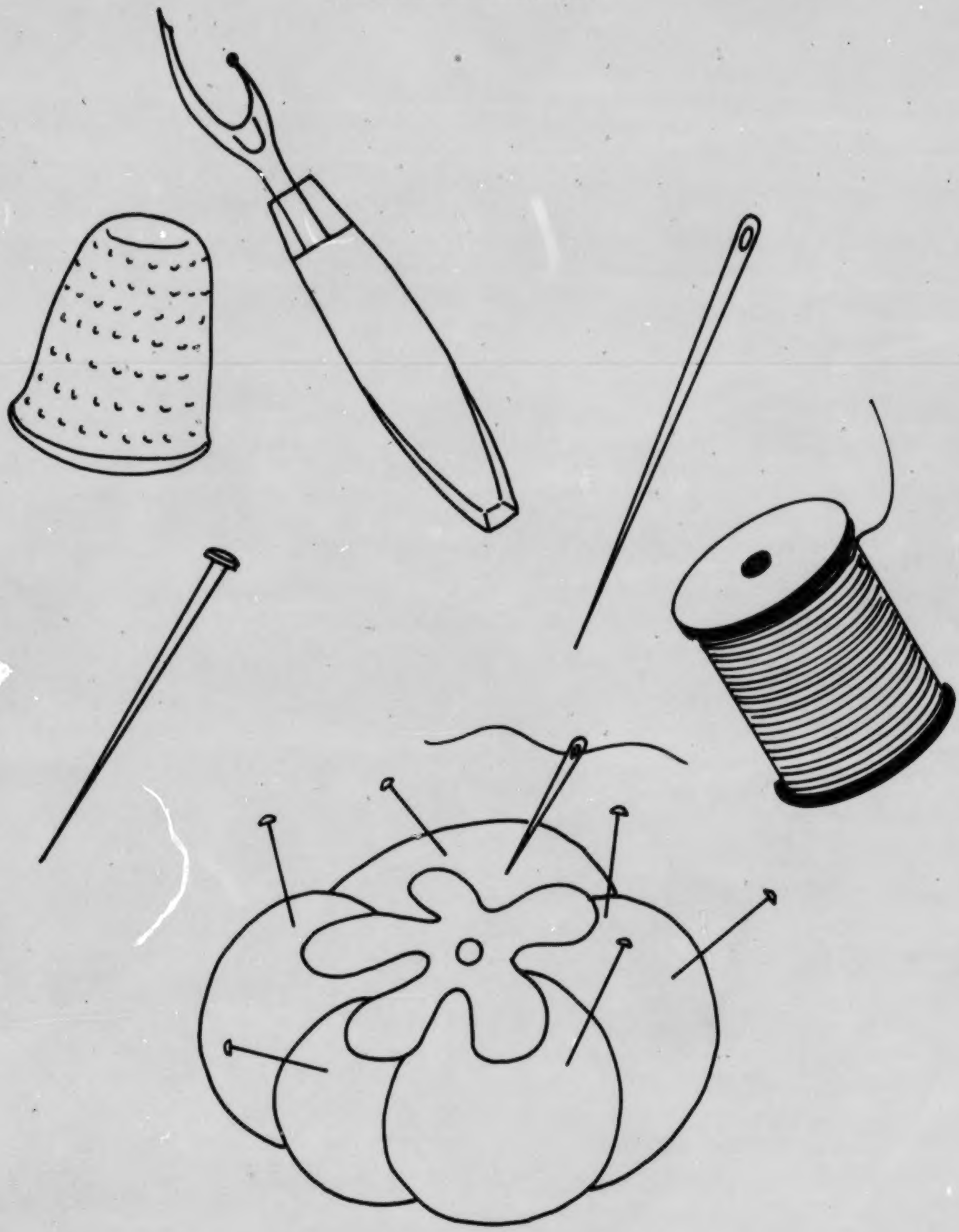
thimble - a round metal cover for fingertip. It is used to protect finger as needle is pulled through fabric.

thread - a long, thin strand used for sewing. Thread comes in many colors. Thread comes in several sizes. Thread may be made of cotton, polyester, nylon, silk, or other material.

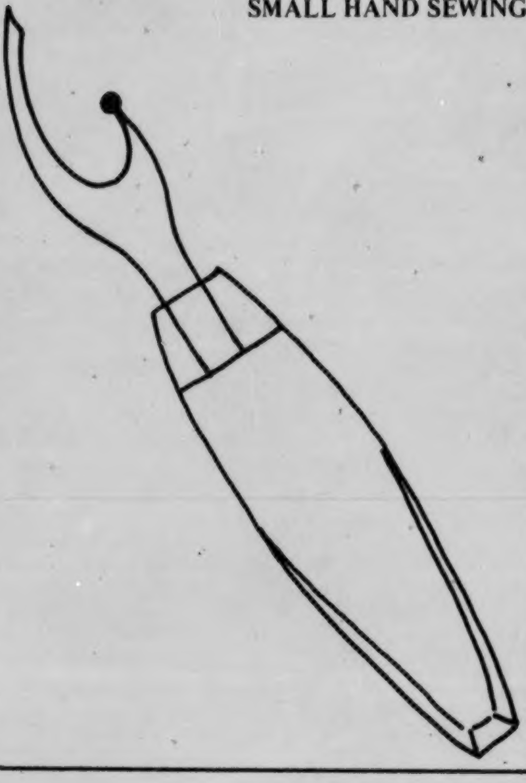
pin and needle cushion - used to stick pins and needles in.

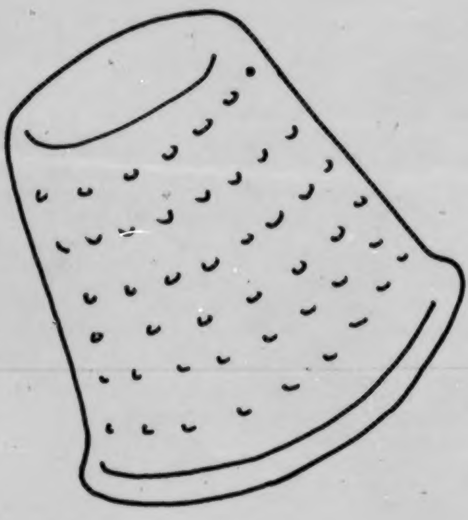
seam ripper - used to rip out stitches. It has a handle and a metal end that is sharp.

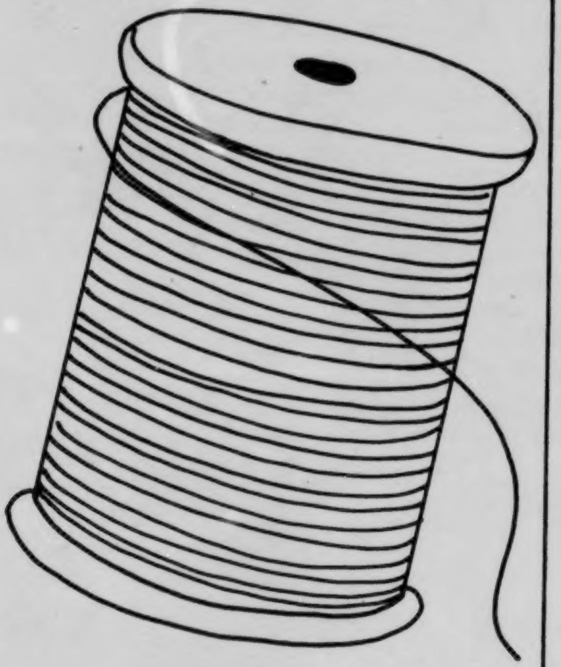
SMALL SEWING TOOLS
(Handout and Transparency)

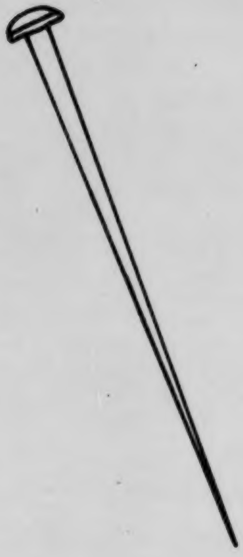


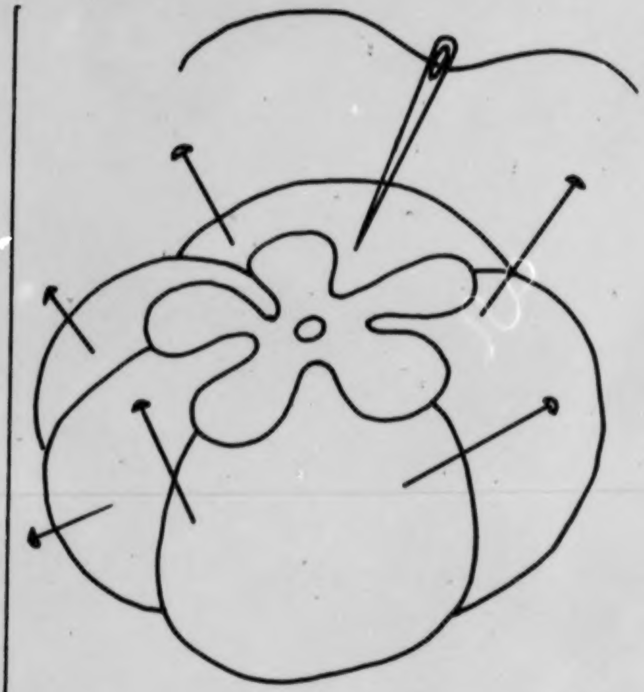
SMALL HAND SEWING TOOLS FLASHCARDS











WHAT AM I?

I have a hole in the top of my head. My other end is sharp and pointy. What am I?
(needle)

You can stick pins and needles in me and it won't even hurt! This is the right place to put your pins and needles when you're not using them. What am I?
(needle and pin cushion)

I have a pointed sharp end and a handle. I rip out stitches. What am I?
(seam ripper)

I have got a pointed, sharp end, too! But I have a head that looks almost like a hat. What am I?
(pin)

I am long and thin. I come in many colors. I am used for sewing by hand or machine. What am I?
(thread)

I am round and metal. I protect your finger when you are sewing by hand. What am I?
(thimble)

SEWING TOOLS CONCENTRATION
(Teacher Information Sheet)

To Make Cards:

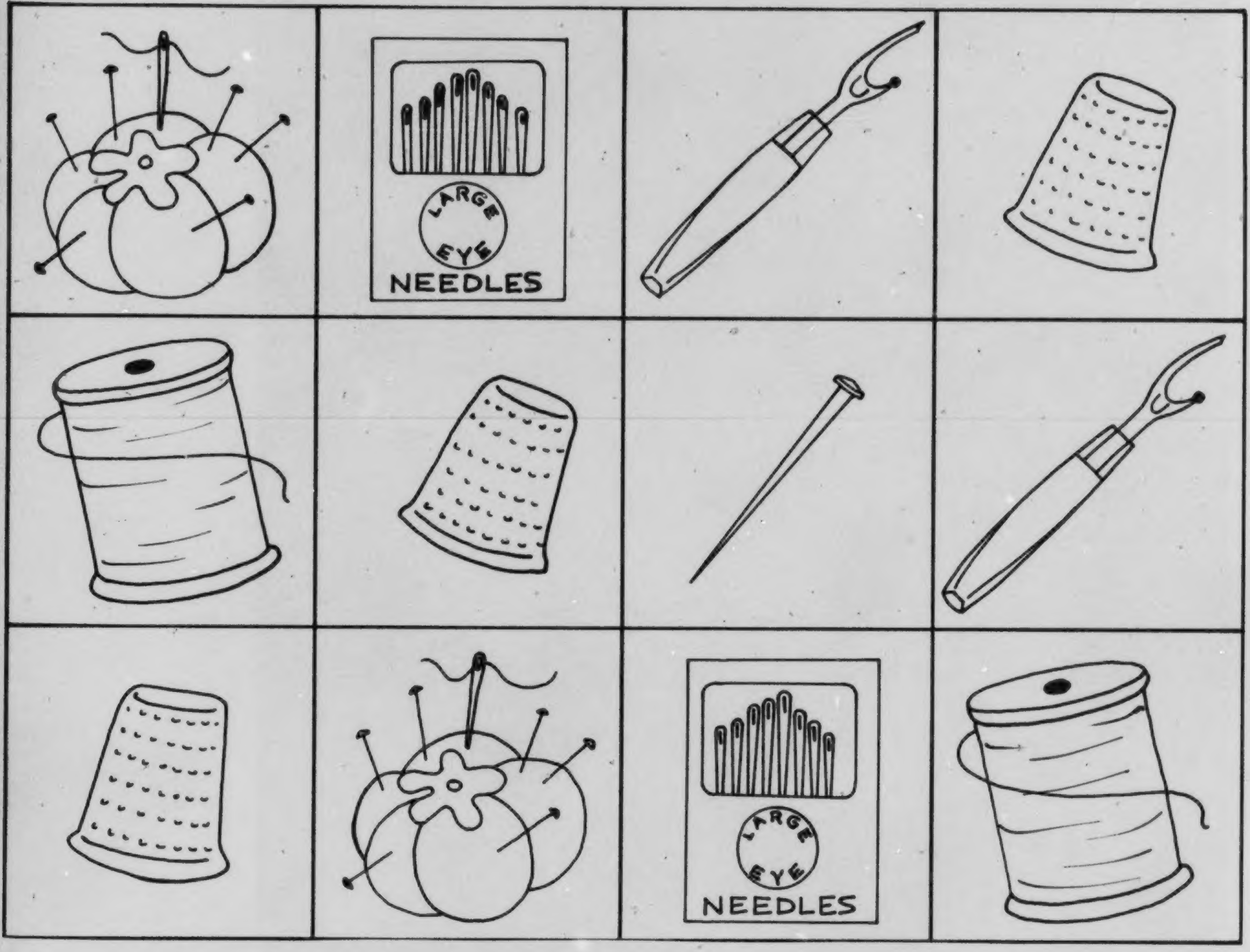
1. Duplicate sets of pictures of each tool for each 4-6 students.
2. Paste the pictures on index cards or construction paper.

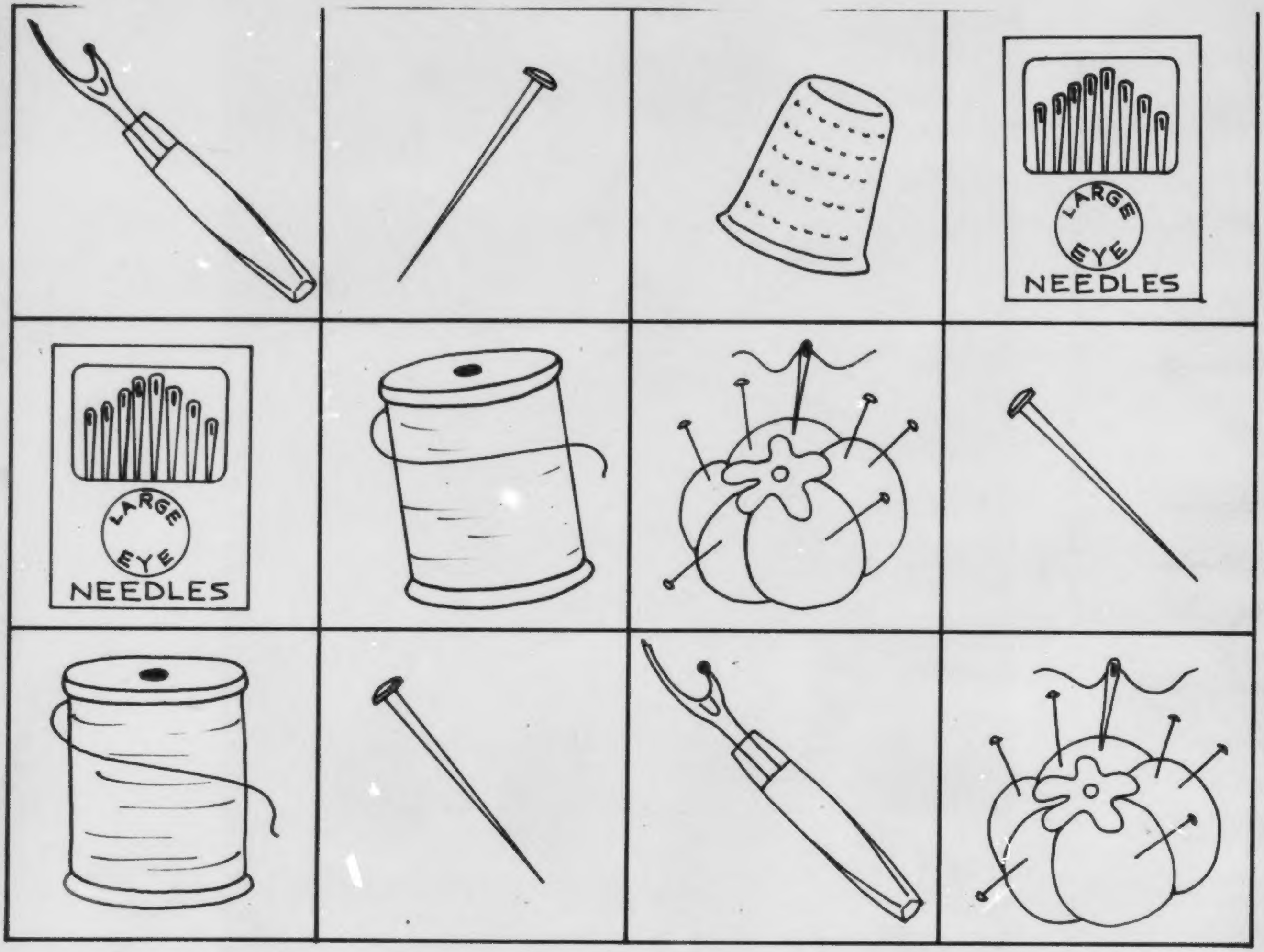
To Play the Game (4-6 players)

1. Shuffle the 24 cards and deal them face down on a table so that no two cards touch. Do not try to put the cards in straight rows.
2. Determine which player will start.
3. Player 1: Turn two cards face up, one at a time. Do not move the cards away from the place where they were on the table.
4. If the two cards are alike, name the sewing tool, then remove the two cards to your own pile of pairs won. Then turn up two more cards.
5. When two cards are turned up which are not alike, wait a few seconds so everyone sees them, then turn the cards back face down.
6. The player to the left takes the next turn.
7. Try to remember the cards which have been turned face up then back face down. When it is your turn, turn up one card, then try to remember where another card like it has been turned up. Turn up the card you think is like the first. If you are right, name the sewing tool and take the pair of cards.
8. The player with the most cards at the end of play wins.

[NOTE TO TEACHER: Additional cards for marking, measuring, and cutting tools can be added to the set as each is studied. Use a maximum of 52 cards per 4-6 players. Adjust the number of cards of each tool according to the size deck needed. Just remember to use an even number of each tool so pairs can be formed.]

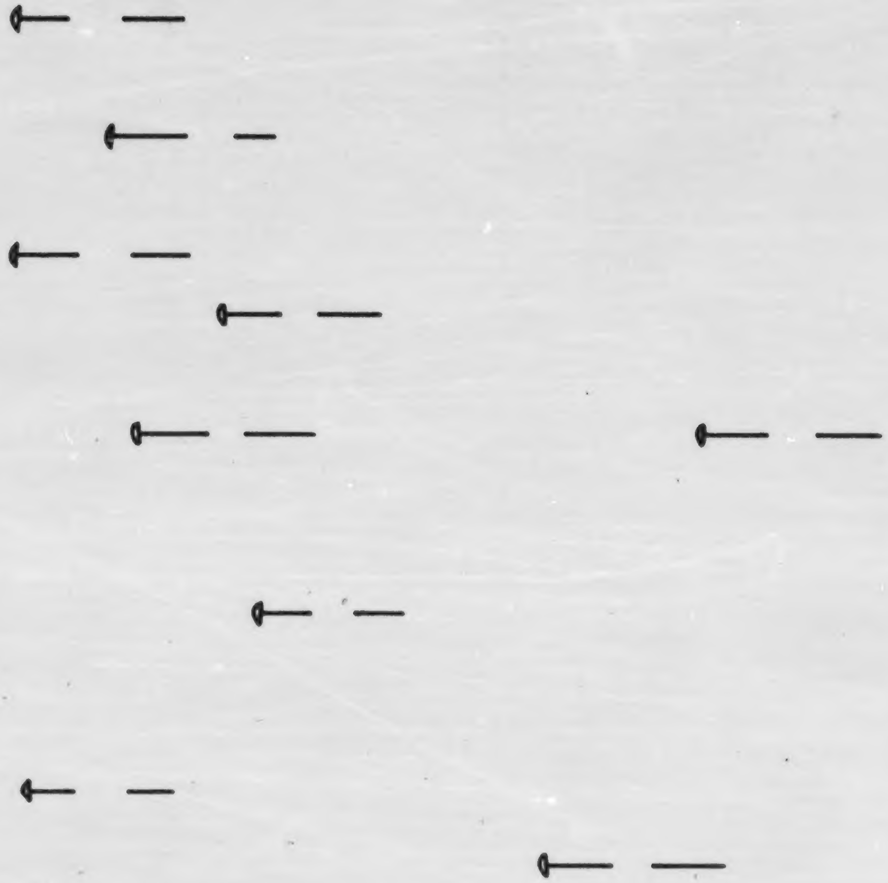
SEWING TOOLS CONCENTRATION
(Game)




LARGE EYE
NEEDLES
LARGE EYE
NEEDLES

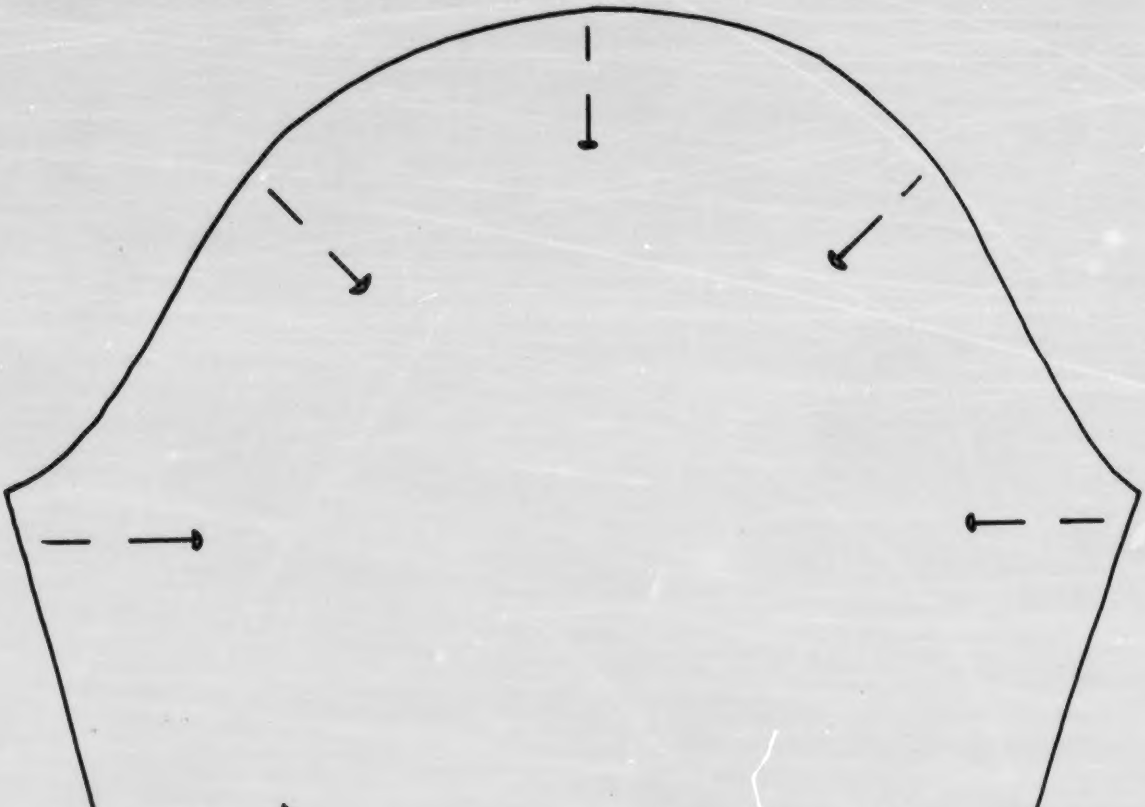
PINS

Directions: Stick a real pin into paper each place a pin is shown below. Turn paper around if needed to make pinning easier.



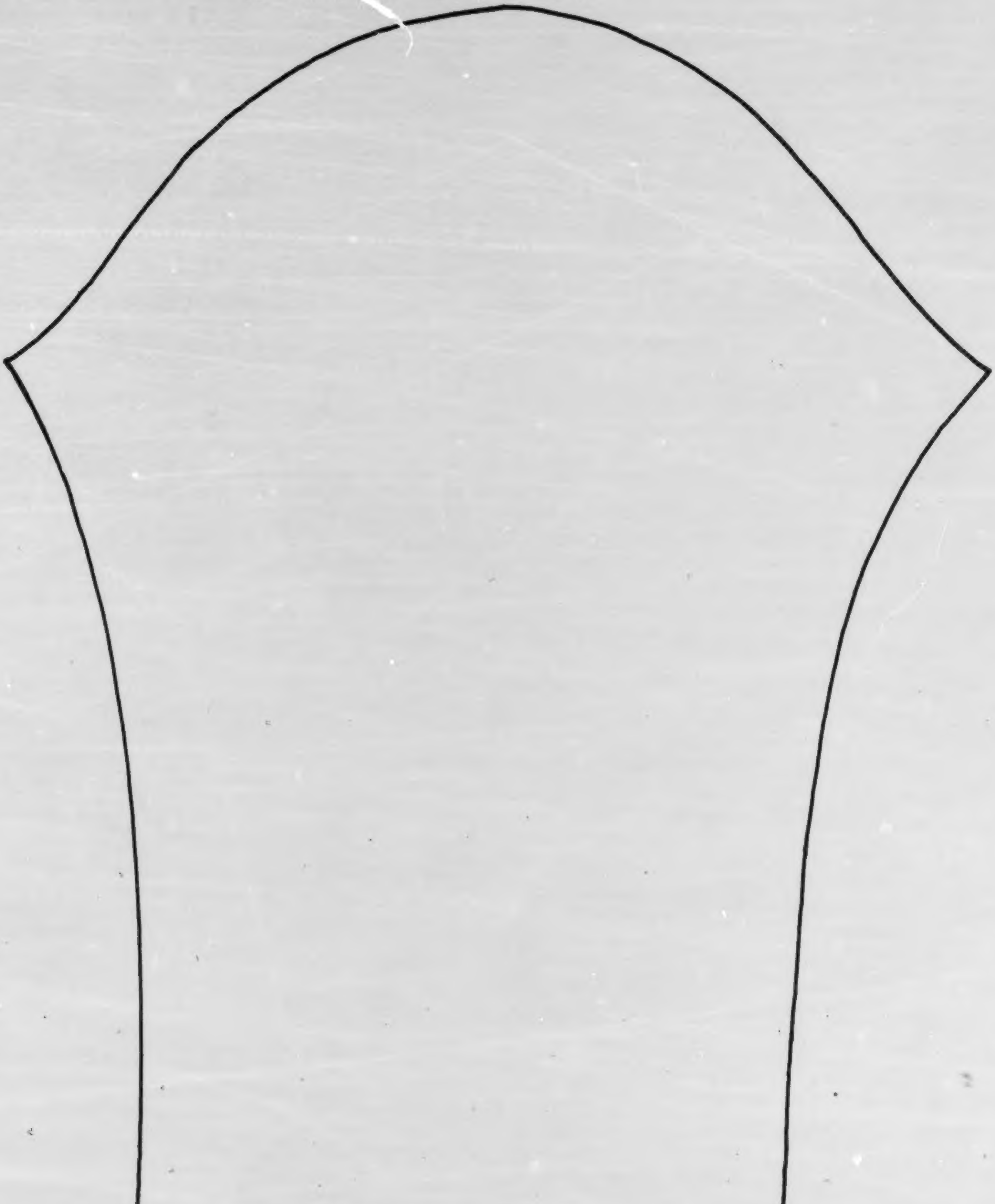
PINNING A PATTERN PIECE
(Handout)

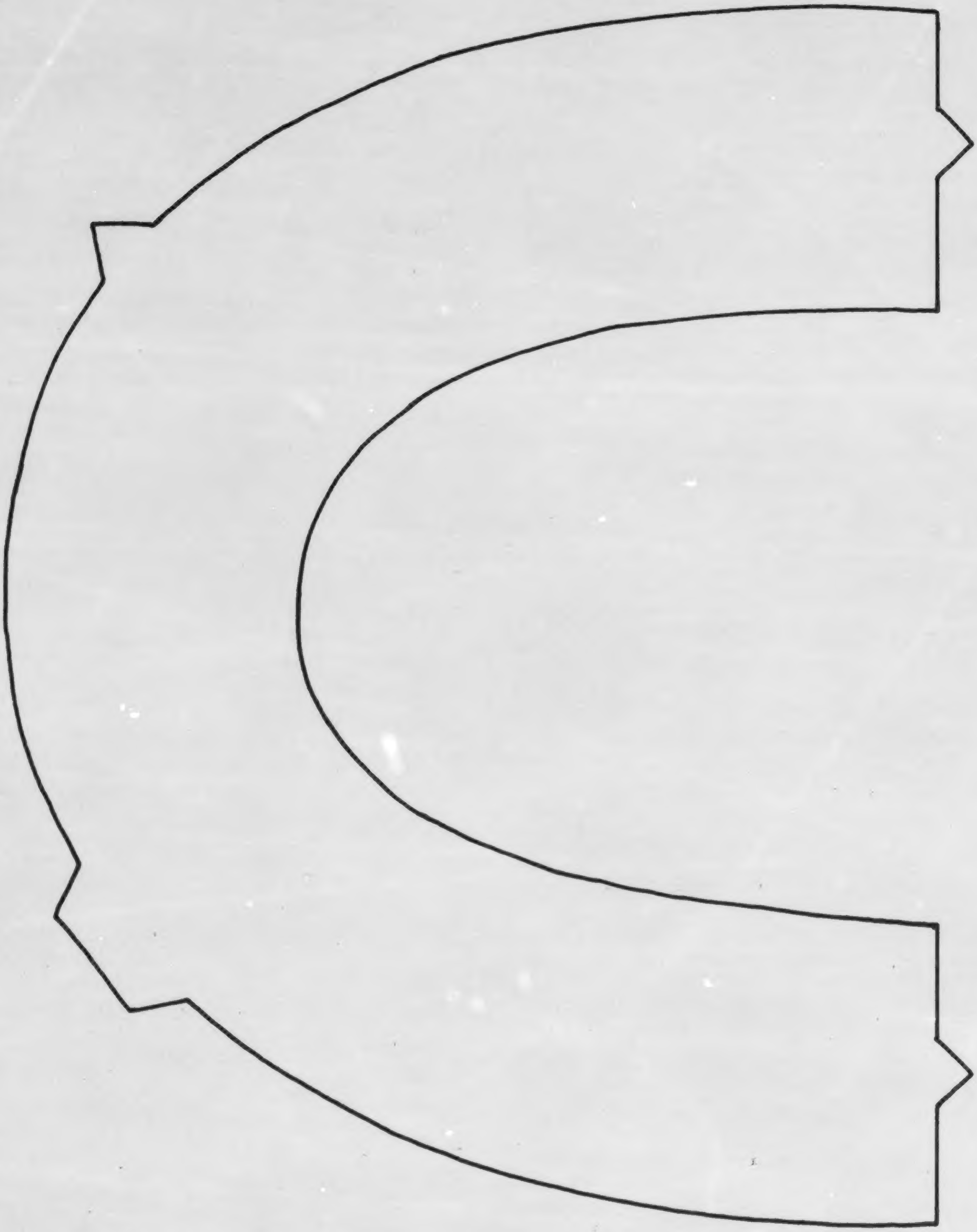
Directions: Stick a real pin in each place a pin is shown below.

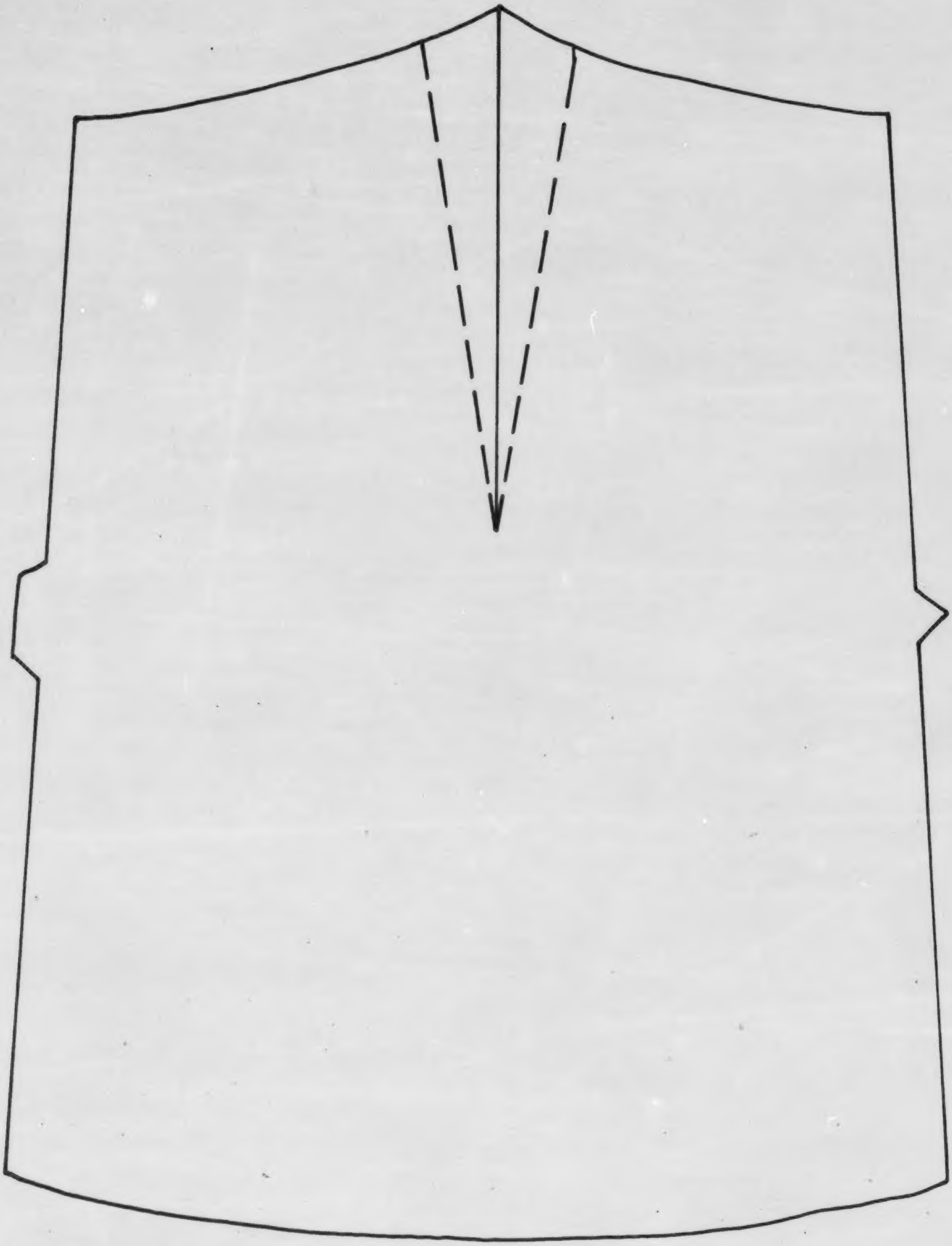


YOU CAN PIN IT
(Handout)

Directions: 1. Cut out the four pattern pieces.
2. Pin each pattern piece to a piece of fabric.







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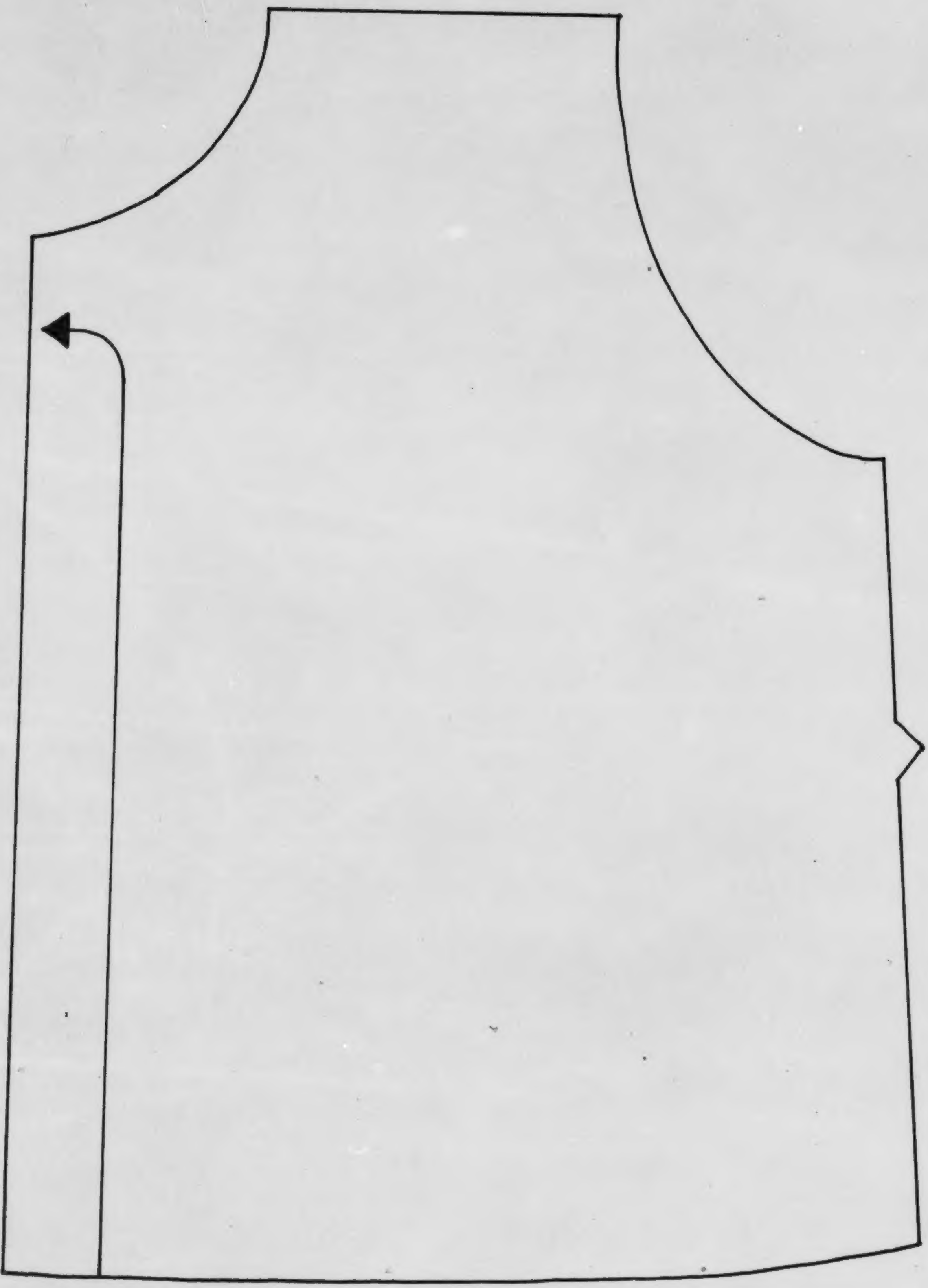


PINS
(Evaluation Sheet)

NAME ______________________________

CLASS ______________________________

TASKS	GOOD	POOR	COMMENTS
1. Pins are placed in the right direction.			
2. Pattern piece lies flat on the fabric.			
3. Enough pins are used to hold pattern firmly to the fabric.			
4. Pins do not go beyond the cutting edge.			
5. Only a few threads are picked up with each pin.			

SEWING TOOLS AND EQUIPMENT

Small Measuring Tools

COMPETENCY:	Ability to select, use, store, and care for the small sewing tools.
SUB-COMPETENCY:	Ability to identify, use, and store tools used for measuring.
WORDS TO KNOW:	sewing gauge marker tape measure fabric yardstick measure

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Identify small sewing tools used for measuring when sewing (C-K)	Look at the small tools used for measuring when sewing. Listen as your teacher holds up each item and states the name of the measuring tool. [NOTE TO TEACHER: Students with auditory problems should be seated where they face the teacher as they may need to lipread.] State the name of each tool in unison as your teacher holds up a small tool used for measuring when sewing. View a transparency showing the small tools used for measuring. State the name of the tool as your teacher points to each tool. (See p. 52.) Play "Measuring Tools Concentration" to learn to identify small sewing tools used for measuring when sewing. [NOTE TO TEACHER: Directions for making the cards and playing the game are on p. 35.] Put puzzle pieces together to form a picture of the small tools used for measuring when sewing. When you are finished putting the pieces together state the name of the measuring tool to your teacher. Trade puzzles with classmates and repeat until you have completed a puzzle for each small measuring tool. [NOTE TO TEACHER: Glue puzzles to cardboard before cutting apart. (See pp. 54-56.] Play "Go Fish." Identify each "measuring tool fish" as it is "caught." [NOTE TO TEACHER: Use a large box as a fishing pond. Blue water could be painted on the front. Make pictures of the small measuring tools on cardboard fish. Tape or staple pieces of string to hang over the front of the box. Students will fish by pulling one of the strings. Have students state the name of the "measuring tool fish" as it is caught. (See p. 57.) This experience can be used in other lessons. Example: Make fish representing safety rules for using measuring equipment.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Define a yardstick (C-K)	Look at a yardstick. [NOTE TO TEACHER: A small notch or white glue which gives a raised dot can be used to indicate inch and foot measurements on a wood yardstick for blind and visually impaired students.] Notice that the yardstick is firm and straight with smooth edges that will not catch on fabric. Is the yardstick metal or wood? What do the numbers on the yardstick tell you? Is the yardstick marked on both sides? How many inches are there in a yardstick? What can you measure with a yardstick? Find the 1-inch marks, ½-inch marks, ¼-inch marks, and 1/8-inch marks on the yardstick.
Define a sewing gauge (C-K)	Look at a sewing gauge. [NOTE TO TEACHER: Blind or visually impaired students will find it helpful to use a sewing gauge made of cardboard. Directions for making the cardboard sewing gauge are on p. 58.] Describe the sewing gauge. What is the sewing gauge made of? What can you measure with the sewing gauge? Find the 1-inch marks, ½-inch marks, ¼-inch marks, and 1/8-inch marks on the sewing gauge.
Define a tape measure (C-K)	Look at a tape measure. [NOTE TO TEACHER: Staples on a plastic or cloth tape measure to indicate inch and foot measurements will be beneficial to the blind or visually impaired student. For example, place horizontal staples on each foot measurement–one staple at the first 12 inches, two staples at 24 inches, etc. Place vertical staples on each inch measurement. Machine stitching may be used in place of staples. Either procedure will allow the student to feel and identify the measurements.] Notice that the numbers are printed on both sides of the tape measure. Are there metal tips on each end of the tape? How long is the tape measure? Is the tape measure firm and not stretched or frayed? What can you measure with the tape measure? Find the 1-inch marks, ½-inch marks, ¼-inch marks, and 1/8-inch marks on the tape measure.
Describe the small sewing tools used for measuring (C-C)	Describe the small tools used for measuring as they are passed around the room. Which small measuring tool has a part that can be moved? Which small measuring tool is the biggest? Which small measuring tool can be bent? What is the difference between a sewing gauge and a yardstick? What is the difference between a tape measure and a yardstick?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Listen to a tape recording describing the small tools used for measuring. State the name of the tool that is being described. [NOTE TO TEACHER: Example: "I am 36 inches long and am made of wood. I cannot be bent. What am I?" Allow plenty of time between each description so that students will be able to answer. For additional reinforcement, after the students state the name of the small measuring tool, make a summarizing statement on the recording such as: "Yes, I am a yardstick. I am 36 inches long and am made of wood. You cannot bend me, can you?" This can be used as an individualized learning experience.]
State how to use a yardstick (C-K)	Watch as your teacher demonstrates how to use a yardstick. Do you use a yardstick to measure straight lines? Look at the numbers as your teacher points to them. In your own words, tell how to use a yardstick.
	Practice finding measurements on a yardstick. Find each measurement as your teacher says it aloud. [NOTE TO TEACHER: State aloud each measurement the students are to locate. Allow time for the students to locate the measurement and check their work before stating the next measurement.]
Explain how to use a yardstick for measuring (C-C)	Describe how to use a yardstick. How can you use a yardstick to tell how long something is? Why would you not want to measure small things with a yardstick?
Practice measuring with a yardstick (P-GR)	Try to measure different lengths using a yardstick. Tell your teacher how long each line is. [NOTE TO TEACHER: Different lengths of lines made of brightly colored adhesive tape may be placed on table tops or floor for the students to measure. Blind or visually impaired students using the specially marked yardstick will need to count the notches or glue dots from the end of the yardstick to the place where the measurement was taken.]
	Attempt to use the yardstick to measure a book or table top that is located in the VEH laboratory.
Use a yardstick to measure lengths of fabric (P-M)	Choose a piece of fabric from a display and measure the length using a yardstick. Write the number of inches on a piece of paper that is pinned on the fabric. Measure three pieces of fabric. Record the measurements and turn them in to your teacher.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Identify the moveable marker on the sewing gauge (C-K)	Look at the sewing gauge you will use when sewing. Where is the marker located?
Cite how to use a sewing gauge (C-K)	Watch as your teacher demonstrates how to use a sewing gauge. Notice how the marker is moved. Watch your teacher use the sewing gauge to measure stitching widths of ¼ inch, ½ inch, 5/8 inch, 1 inch, and 3 inch. How did your teacher move the marker when measuring with the sewing gauge? Where did your teacher place the marker on the fabric? In your own words, tell how to use a sewing gauge.
	State how to use a sewing gauge as your teacher records your voice with a tape recorder. When each of your classmates has made a recording, listen as your teacher plays the tape back several times.
Describe how to use a sewing gauge (C-C)	Give an example of when you would use the sewing gauge. Show classmates how to move the marker on the sewing gauge to measure two inches.
Practice using the sewing gauge (P-GR)	Measure different lengths of lines on a table top. [NOTE TO TEACHER: Place adhesive lines on a table top for students to measure.]
	Practice using the sewing gauge to measure lines on a handout. (See p. 59.) Tell your teacher how long each line is. You may also write the number of the measurement in the square beside each line.
	Mark stitching widths of 1/8 inch, ¼ inch, ½ inch, and 5/8 inch on a sheet of construction paper. Move the marker on the sewing gauge to make the correct measurement. Use chalk to mark the measurement on the construction paper. Have your teacher check your work.
	Find the 5/8 inch line on the sewing gauge. Measure 5/8 inch from the edge of a piece of paper. Turn the edge under. Ask your teacher for assistance.
Use a sewing gauge to measure fabric (P-M)	Move the marker to measure 5/8 inch, 1 inch, 2 inches, and 4 inches from the edge of fabric. Show your teacher each time you move the marker. (See p. 60 for evaluation sheet.) [NOTE TO TEACHER: Use a dark colored fabric on a light colored surface to provide color contrast for visually impaired students.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Use a sewing gauge to measure stitching width on fabric. As your teacher calls out the size of the measurement move the marker on the sewing gauge and mark the measurement on a scrap of fabric.
State how to use a tape measure (C-K)	View a demonstration by your teacher on using a tape measure. How is a tape measure used to measure objects that are not flat? Look at a handout showing where your teacher is measuring. (See p. 61.) Why could you not use a yardstick? What can be measured using a tape measure? What is the tape measure used to measure?
Explain how to use a tape measure (C-C)	Play "Tape Measure Hopscotch" to learn more about using a tape measure. (See pp. 62-63.) When you land on a numbered square, answer a question on how to use the tape measure. [NOTE TO TEACHER: Make a hopscotch board on the floor or sidewalk using either chalk or tape. This activity could be conducted out of doors.]
Practice using a tape measure (P-GR)	Divide into groups of two. Take turns measuring each other's wrists and waists. Be sure to hold the tape measure straight, but not tight, as you measure. Ask your teacher for help or look at the handout on how to measure with the tape measure. (See p. 61.)
	Use the tape measure to measure fabric that has been cut in a curved shape. Tell your teacher how long each one is. [NOTE TO TEACHER: Choose fabric lengths according to students' abilities.]
Use a tape measure (P-M)	Measure the arm length of another student. Tell your teacher the arm length measurement. Repeat until an accurate measure is taken.
	Measure three fabric pieces using a tape measure. [NOTE TO TEACHER: The fabric lengths for the students to measure should be 20 inches, 11 inches, and 5 inches long. An evaluation form in on p. 64.]
Identify where to store small measuring tools in the laboratory (C-K)	Locate where the small measuring tools are stored in the VEH laboratory. Place a picture of a tape measure, yardstick, and sewing gauge on the outside of the storage area where the items can be found. [NOTE TO TEACHER: Use braille labels on storage areas to aid the visually impaired and blind students.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Show where the small measuring tools are stored (C-Ap)	Place the small measuring tools in the proper storage area in the VEH laboratory. [NOTE TO TEACHER: Have several sets of the small measuring tools out on display table. Repeatedly allow students to store each item.]

WORDS TO KNOW
About Small Sewing Tools
(Teacher Information Sheet)

sewing gauge - a short, metal or plastic ruler marked with lines and numbers for measuring. It can be bent. It is 6 inches long.

marker - the part that moves on a sewing gauge.

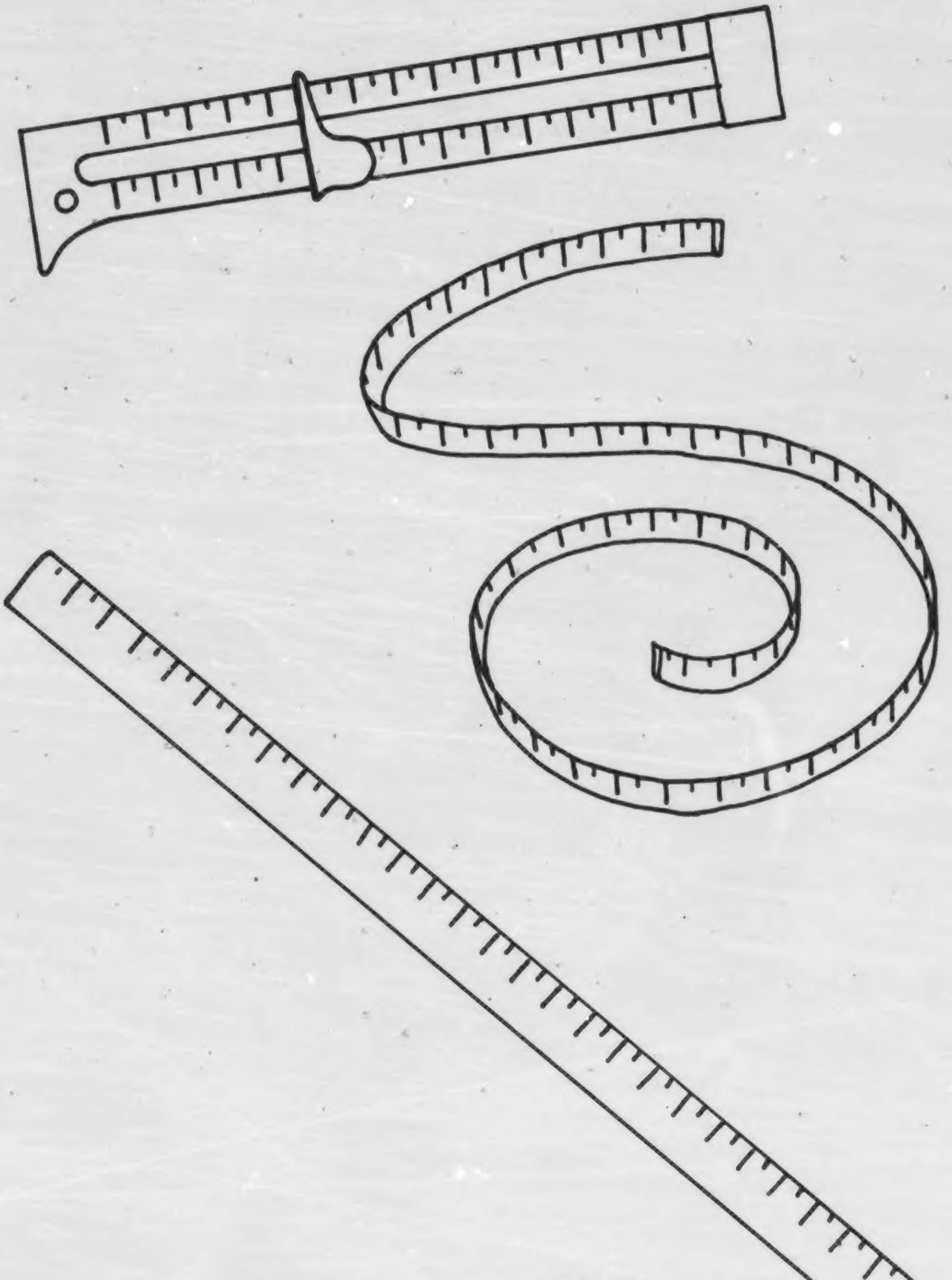
tape measure - a long strip of plastic or cloth marked with lines and numbers for measuring. It is 60 inches long.

yardstick - a long wooden stick marked with lines and numbers for measuring. It is 36 inches long.

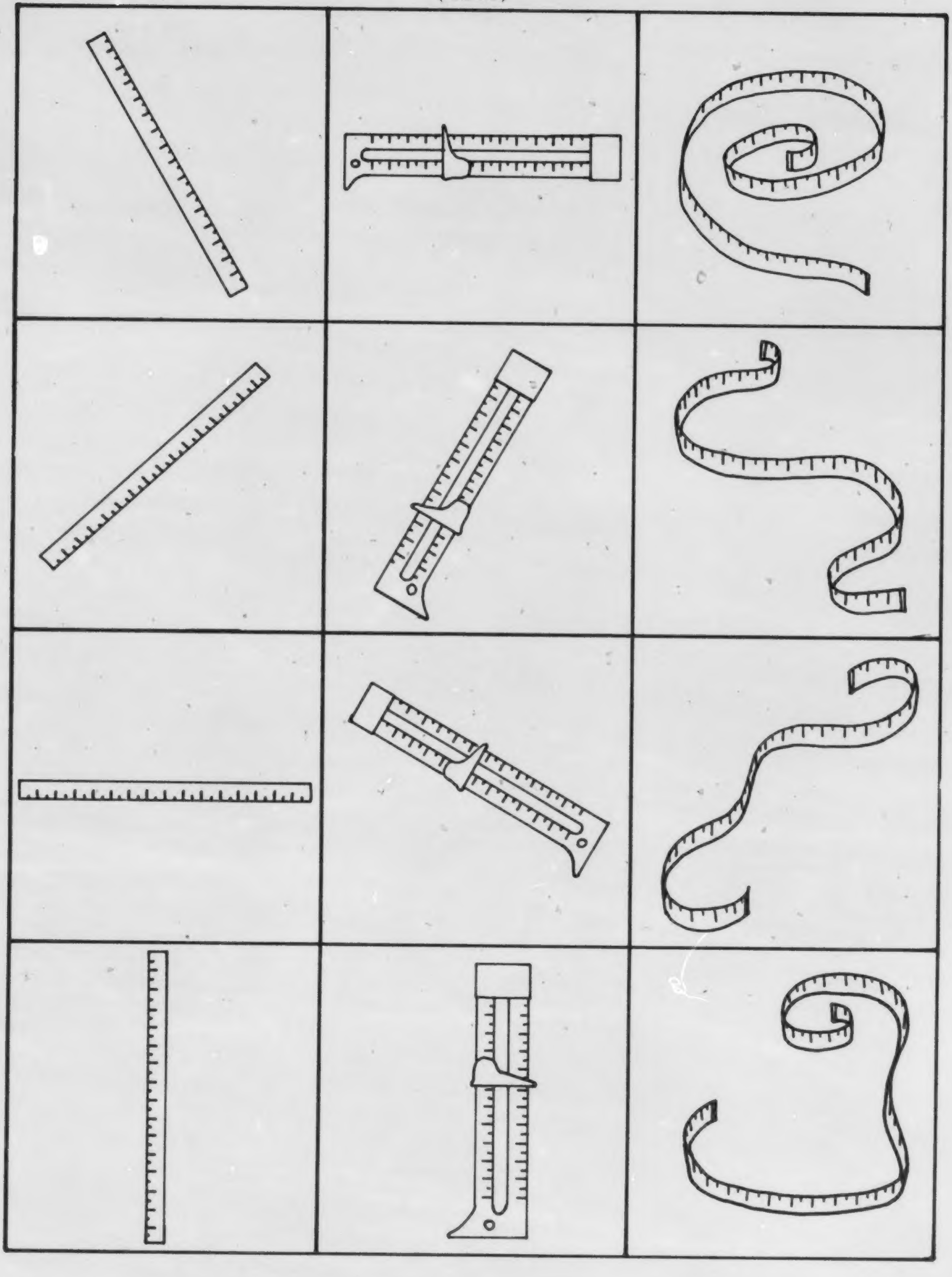
measure - to find the size of something.

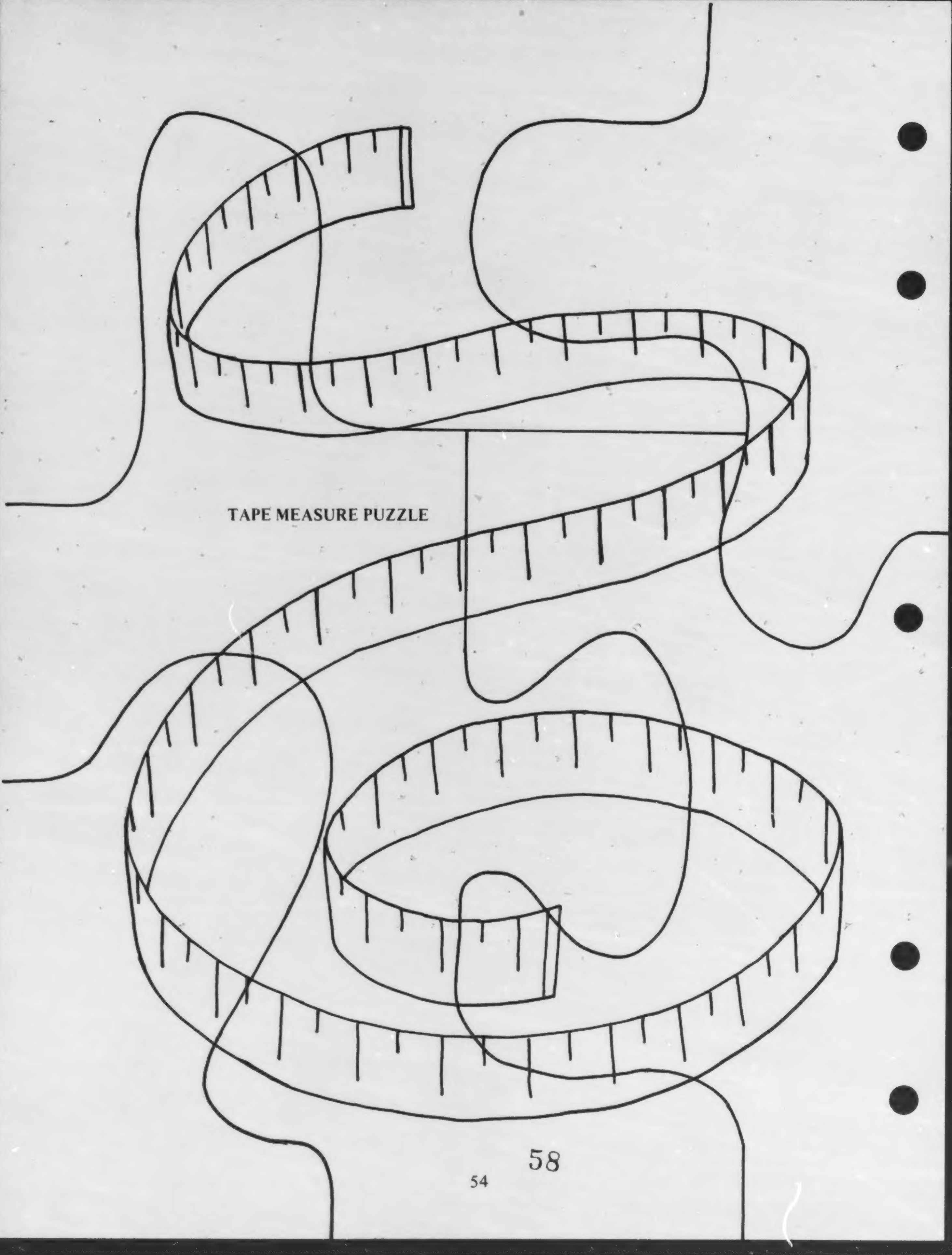
fabric - material or cloth.

MEASURING TOOLS
(Transparency)



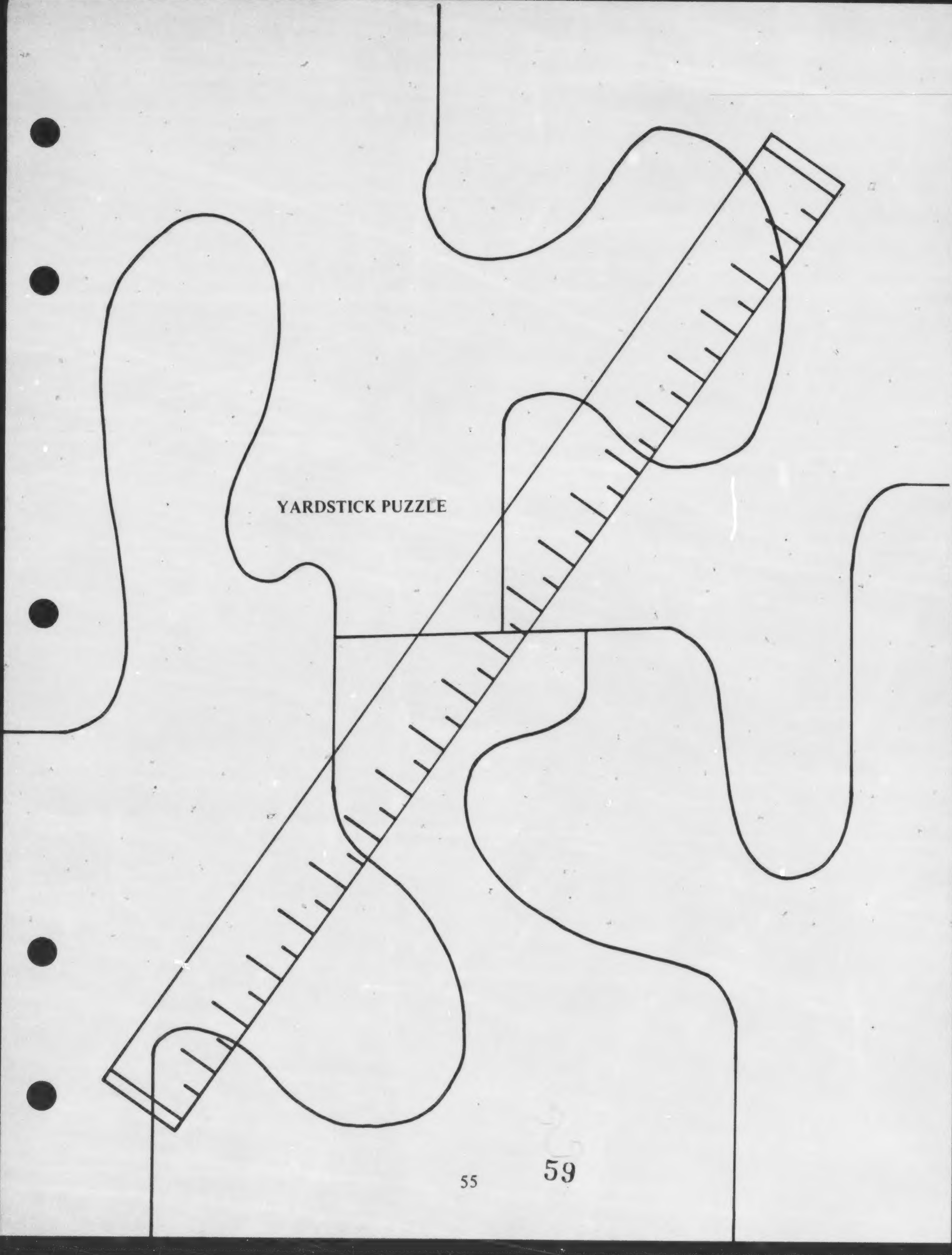
MEASURING TOOLS CONCENTRATION
(Game)

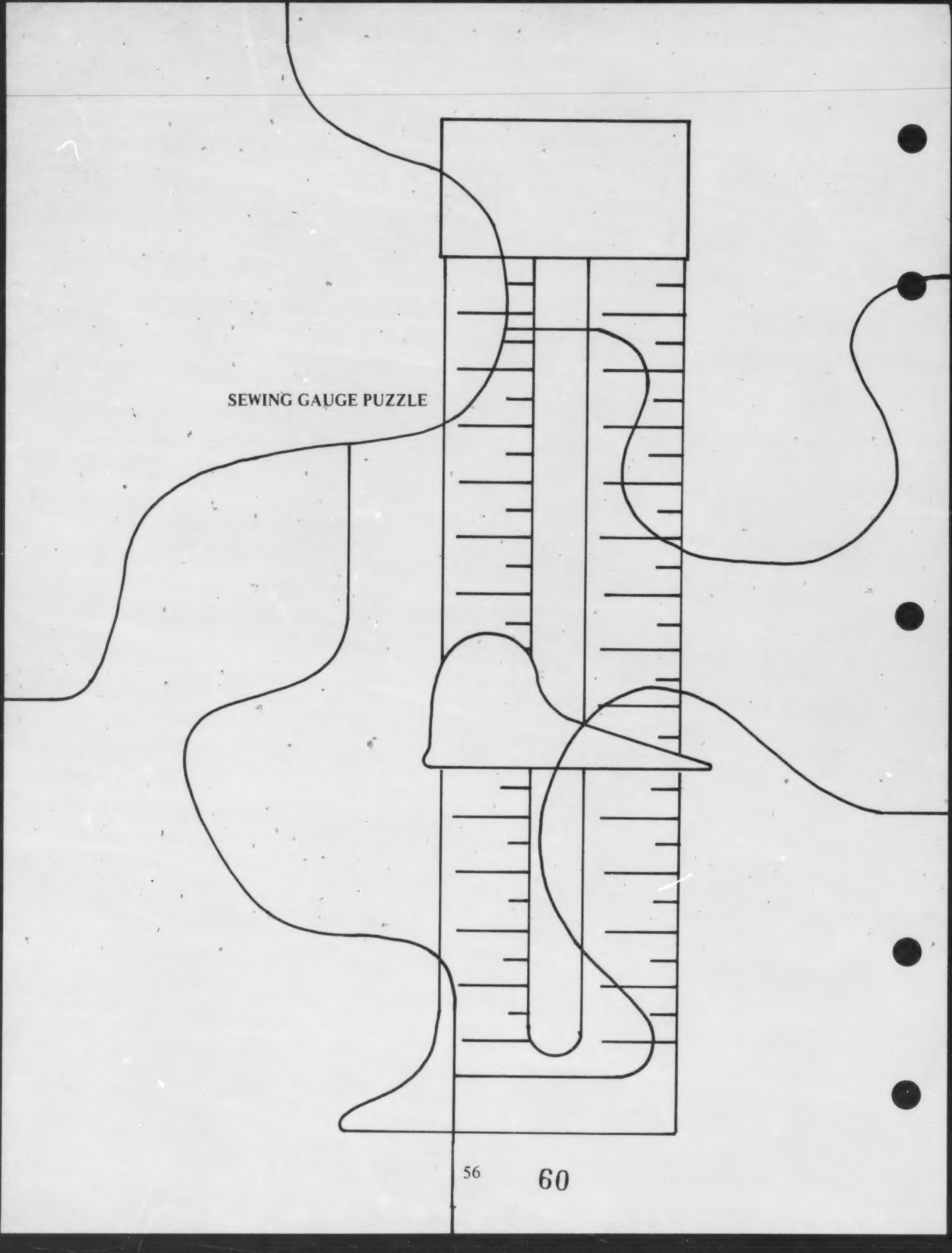




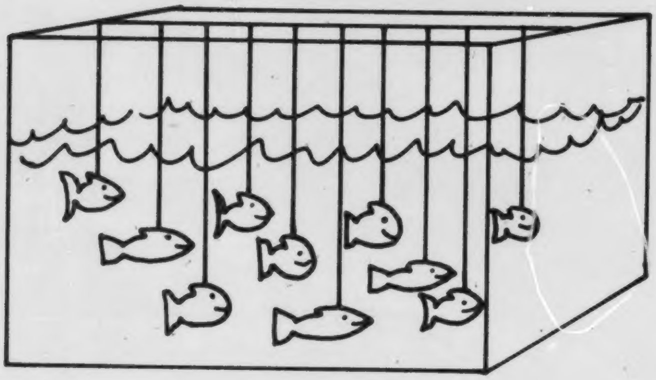
TAPE MEASURE PUZZLE

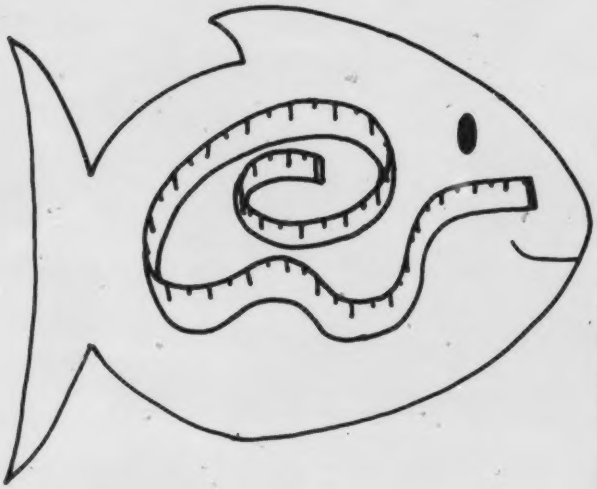
YARDSTICK PUZZLE

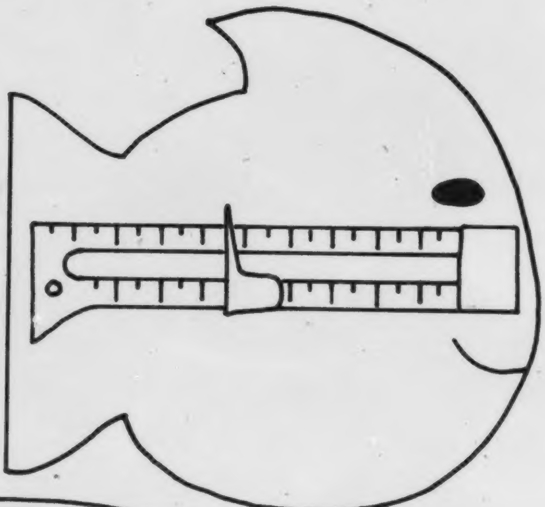


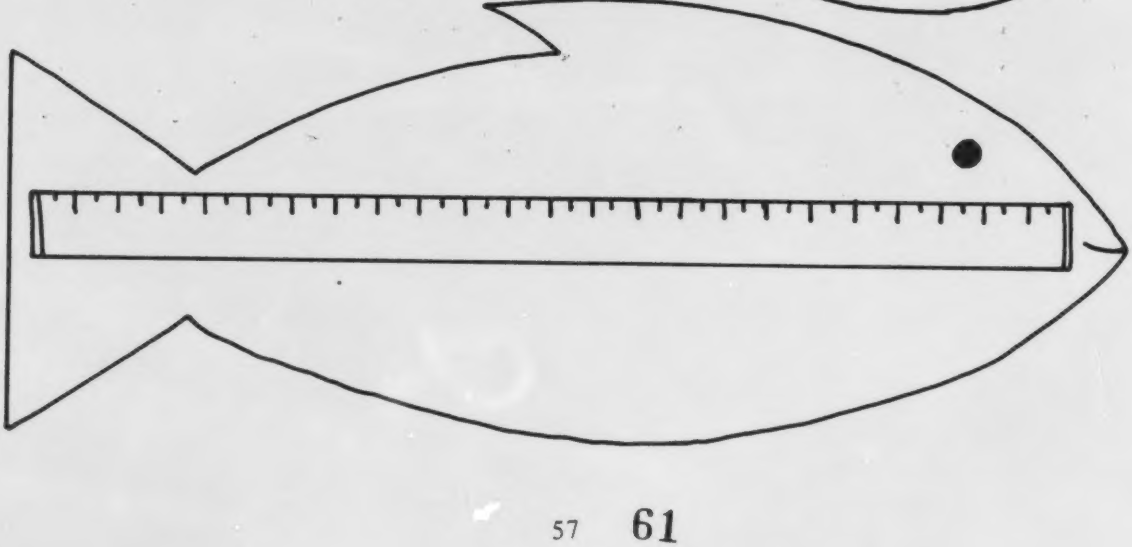

SEWING GAUGE PUZZLE

GO FISHING FOR MEASURING TOOLS



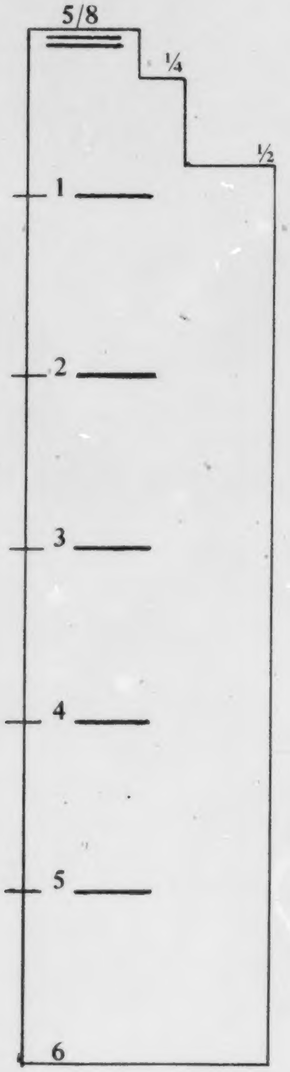






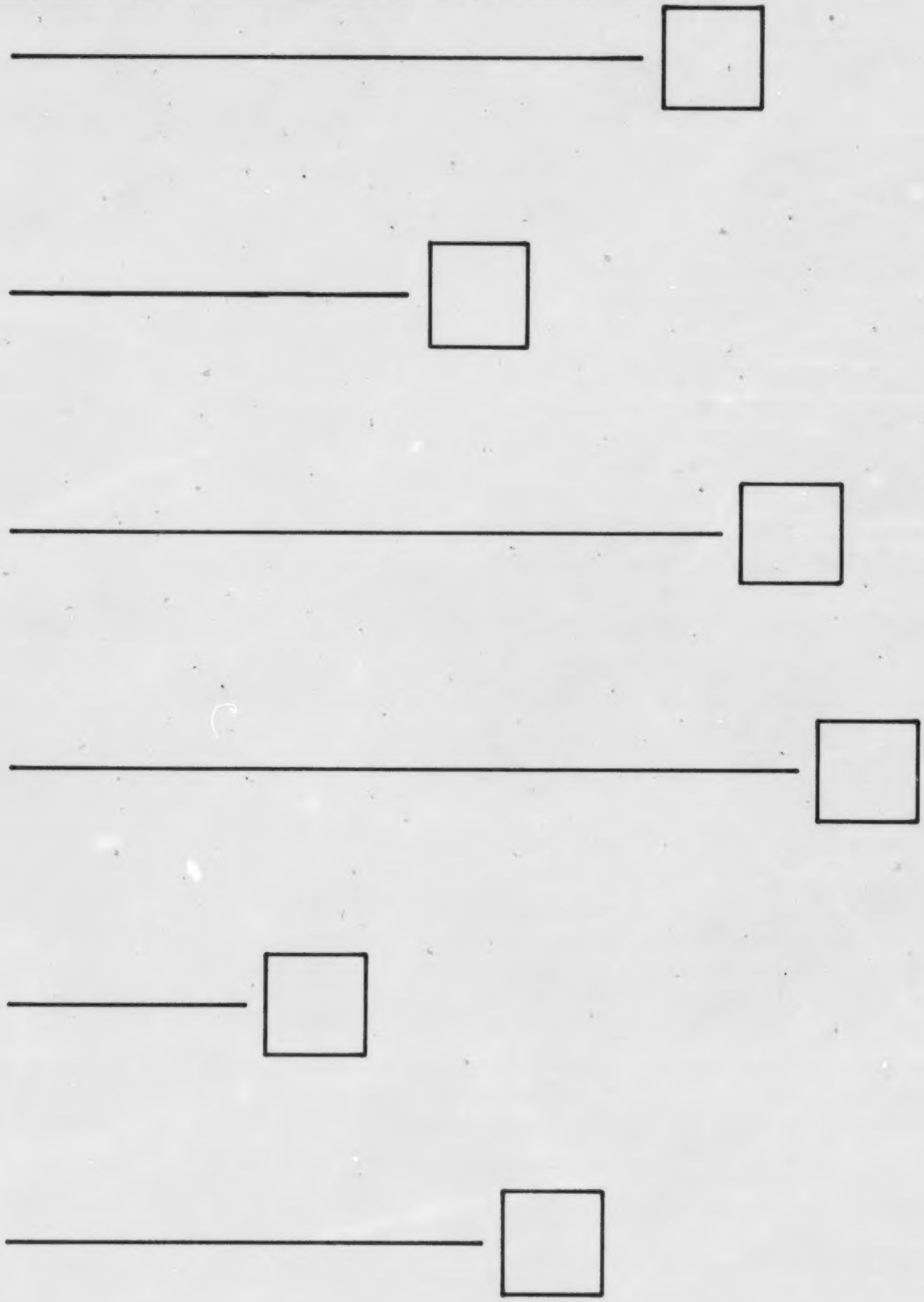
SEWING GAUGE FOR BLIND STUDENTS
(Teacher Information Sheet)

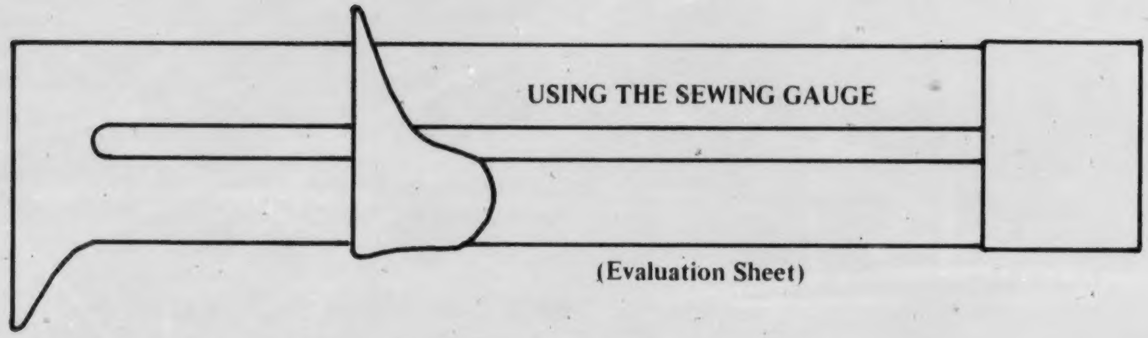
DIRECTIONS:
1. Make a sewing gauge of cardboard, duplicating the measurements shown in sketch.
2. Place two staples at the 5/8 inch marking to indicate the 5/8 inch edge of the gauge. The student can feel the ¼ inch and the ½ inch markings. The measurements for ¼ inch and ½ inch will be accurate on both edges of the specified notches.
3. Mark the inches with a white glue dot or a staple. The student can count the markings for 1 inch to 6 inch measurements.



SEWING GAUGE
(Handout)

Measure these lines. Write the length of the line in the box at the end of the line.





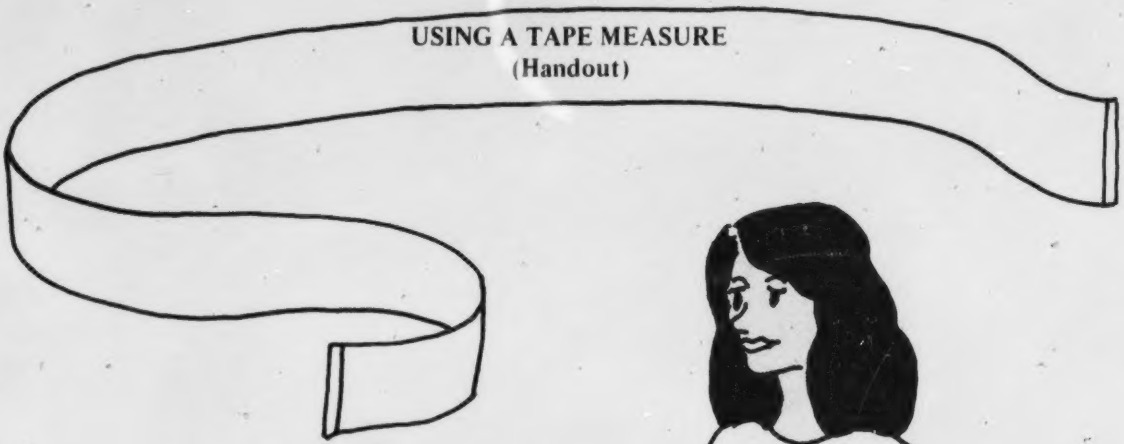
USING THE SEWING GAUGE

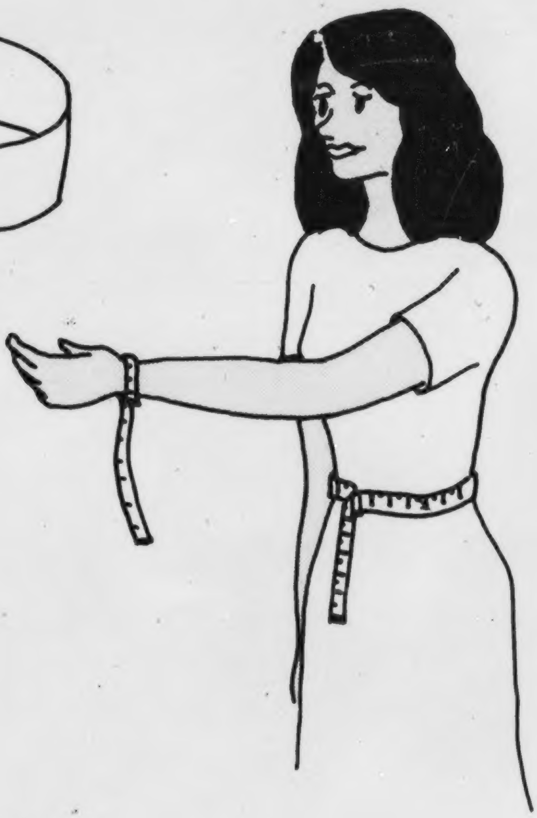
(Evaluation Sheet)

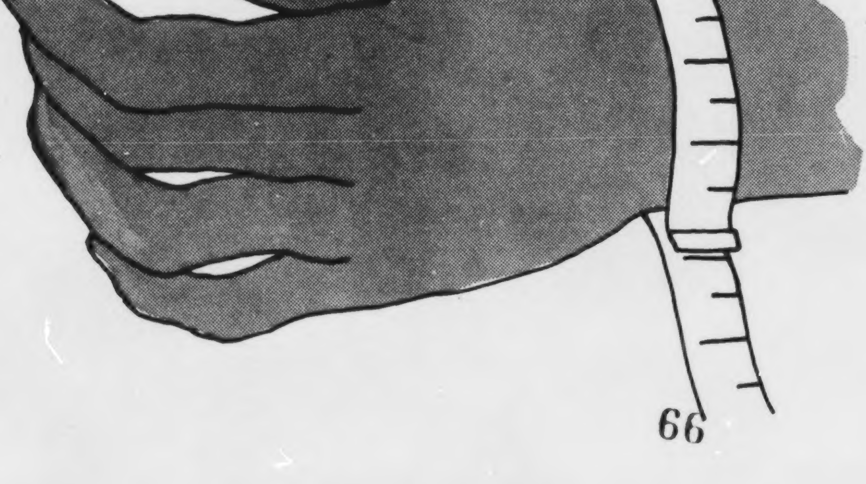
The student is able to use the sewing gauge:

MEASUREMENT	NOT AT ALL	WITH SOME ACCURACY	ACCURATELY
5/8"			
1"			
2"			
4"			

USING A TAPE MEASURE
(Handout)







DIRECTIONS FOR TAPE MEASURE HOPSCOTCH
(Teacher Information Sheet

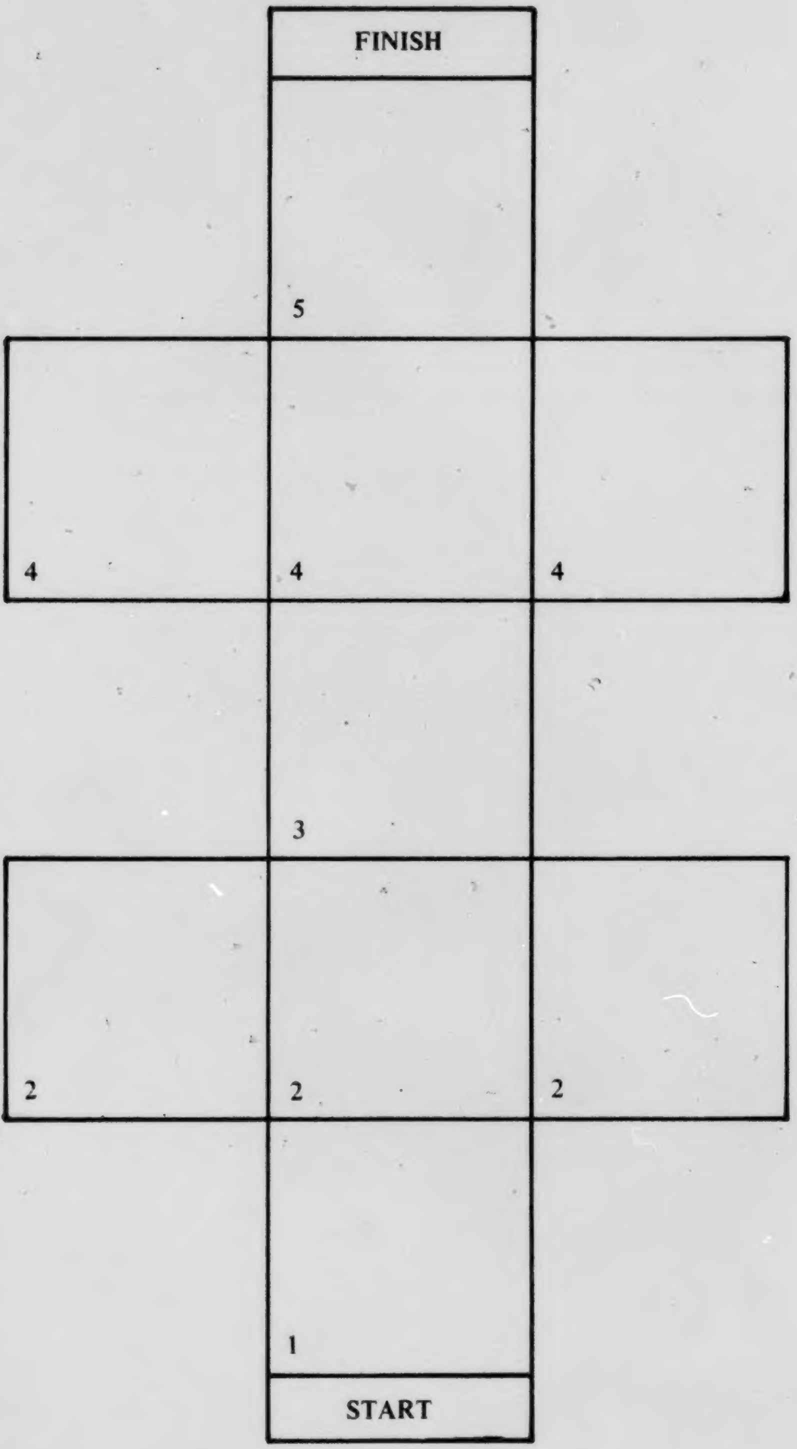
To Make Game:

1. Make one hopscotch board for each 4-8 students. Boards may be made on the classroom floor or outside on a concrete walk using chalk or tape.
2. Number the squares as indicated on the illustration.
3. Write START and FINISH on the designated squares.
4. Make or obtain small bean bags in several colors to use as markers.

To Play:

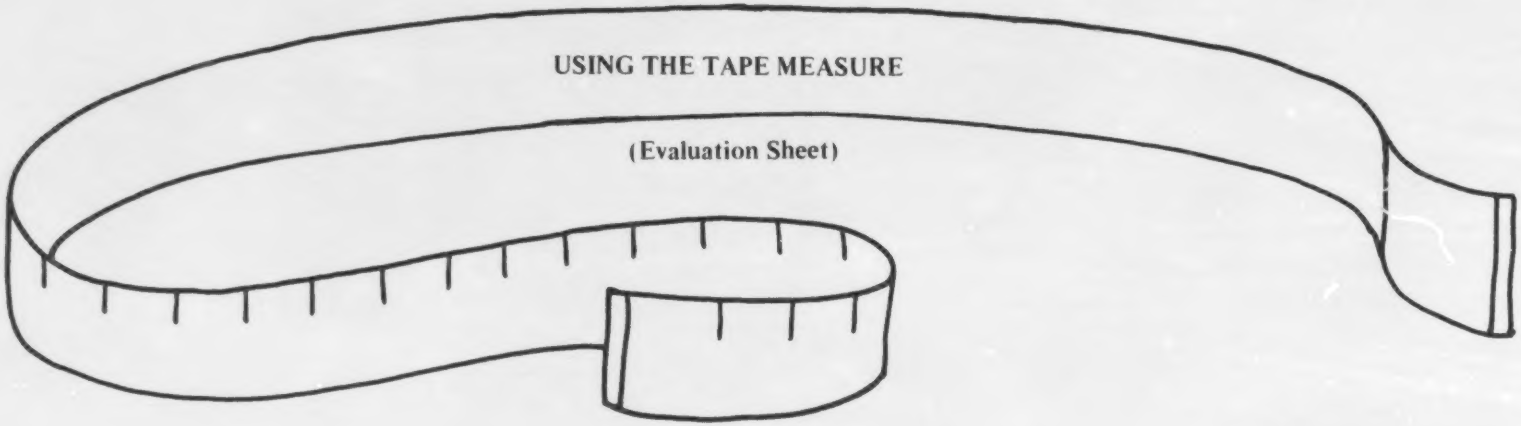
1. Students form a line behind the START.
2. The first student in line stands at the START and tosses his or her marker trying to land on the square numbered 1.
3. If the marker does not land on the square numbered 1, the player loses her or his turn.
4. If the marker lands on the square numbered 1, the teacher will read a question about using the tape measure.
5. If the student answers the question correctly, he or she will try to toss the marker to a square numbered 2 on his or her next turn.
6. Repeat steps 1-5 until all players reach the finish line.
7. Each player who reaches the finish line should receive a small reward or ribbon.

TAPE MEASURE HOPSCOTCH
(Game)



USING THE TAPE MEASURE

(Evaluation Sheet)



The student is able to use the tape measure:

LENGTH OF FABRIC	NOT AT ALL	WITH SOME ACCURACY	ACCURATELY
20"			
11"			
5"			

SEWING TOOLS AND EQUIPMENT

Small Cutting Tools

COMPETENCY: Ability to select, use, store, and care for small sewing tools.

SUB-COMPETENCY: Ability to identify, safely use, and store tools used for cutting.

WORDS TO KNOW:

- cutting shears
- tailor's shears
- trimming shears
- pinking shears
- buttonhole scissors
- ripping scissors

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Identify small tools used for cutting (C-K)	Look at the different types of sewing shears in the clothing service laboratory. Repeat the name of the cutting tool after your teacher says the name.
	Name each type of shears or scissors used as your teacher holds it up.
	State the name of each small tool used for cutting as your teacher points to it on a transparency. (See p. 69.)
State how to safely hold shears (C-K)	Watch your teacher demonstrate the safe way to hold shears. Are shears sharp? What might happen if you handed someone a pair of shears with the pointed end towards their hand? How should you hold shears when handing them to someone? Should you close the shears when you are walking around with them? Should you carry the shears by the handle with the blade pointing toward the floor? Why is it dangerous to run with shears? Why is it dangerous to put shears in your lap?
	Identify the correct way of holding shears by circling the right way on a handout. (See p. 70.)
Follow the safe procedure for holding shears (P-GR)	Practice safely holding shears following instructions given by your teacher. Did you place your thumb in the round handle? Did you place either two or three fingers in the big handle? Have your teacher check the way you are holding the shears. [NOTE TO TEACHER: These directions are for a right-handed student. Reverse to the left hand for left-handed students.]
	Form a circle. Hold shears safely and hand the shears to the person next to you. Continue to pass the shears around the circle under your teacher's supervision.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Practice holding shears safely. Pick the shears up from the table, carry the shears to your teacher, and hand the shears to your teacher.
Identify how to use shears (C-K)	View a demonstration by your teacher on how to use shears. Notice how your teacher uses long, even strokes. [NOTE TO TEACHER: Hold the shears up in front of the class and demonstrate how to open and close the shears before showing the students how to cut something.]
Describe how to use the shears (C-C)	Take turns describing to the class how to use shears. Where do you place your fingers? How do you make the shears cut?
	Show how to use shears by pretending to cut air. Use long, even strokes.
Practice using shears (P-GR)	Try to cut down each straight line drawn on the fabric handout. (See p. 71.) [NOTE TO TEACHER: Trace lines on pellon or fabric scraps or use fabric with stripes. Machine baste the lines on fabric for the blind student to practice cutting. The blind or visually impaired student will find it helpful to use surgical scissors (bandage scissors) for cutting out fabric as the knob on the bottom blade can be lined up with the fabric because the angle of the blade allows the scissors to lie flat on the table. The blind student will cut more accurately if the shears are only partially opened. They can cut slowly with the shears while keeping the other hand on the edge of the pattern. The student with limited arm or hand movement will find it easier to manipulate shears with a knifesharp edge such as the Gingher scissor. Students with certain physical limitations may find it easier and less tiring to use electric scissors.]
	Cut out the curved lines marked on a fabric handout to practice using shears. (See p. 72.) [NOTE TO TEACHER: Transfer lines to fabric or use fabric with printed curved lines.]
	Use a pencil or fabric marking pen and trace around pattern shapes on fabric. (See p. 73.) Cut the shapes out using shears. [NOTE TO TEACHER: Transfer the pattern shapes to cardboard or posterboard so that students may trace around the pattern on fabric.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Practice using shears to cut fabric (P-GR)	Practice using cutting shears to cut along the machine stitching on fabric provided by your teacher. [NOTE TO TEACHER: Give each student a 10- to 12-inch fabric sample with rows of machine basting two or three inches apart. Bright, contrasting thread would be helpful when students are first learning to cut along lines.]
	Cut out shapes marked by machine stitching on a fabric sample provided by your teacher. [NOTE TO TEACHER: Give each student a fabric sample with various shapes (circle, triangle, etc.) outlined with machine basting.]
Use shears to cut out pattern pieces (P-M)	Using cardboard bodice patterns, trace patterns on fabric. Cut out both bodice patterns. Try to make a smooth edge. [NOTE TO TEACHER: Prepare cardboard patterns using illustrations on pp. 74 and 75. A checklist is included for evaluation on p. 76.]
	Cut ¼ inch away from the machine stitching on a fabric sample provided by your teacher. [NOTE TO TEACHER: Give each student a fabric sample with rows of machine basting two to three inches apart. This activity will simulate trimming seams.]
Practice using pinking shears (P-GR)	Finish a seam edge by pinking the edges of both sides of the seam. [NOTE TO TEACHER: Stitch and press open 5/8 inch seams that are 10- to 12-inches long and have the students pink the edges.]
Use trimming shears to finish seam edges (P-M)	Use trimming shears to trim the edges of seams. [NOTE TO TEACHER: Stitch 5/8 inch seams about 10 inches long and have students practice trimming.]
Attempt to cut a buttonhole using buttonhole scissors (P-GR)	With your teacher's help, cut sample buttonholes open using buttonhole scissors.
Attempt to use ripping scissors (P-GR)	Observe your teacher rip a seam using ripping scissors. Practice ripping open seams using ripping scissors until you can do it with ease.
Select the appropriate shears or scissors for each sewing task (C-Ap)	Choose the correct shears or scissors whenever needed for a task in the clothing service laboratory.

WORDS TO KNOW

About Small Cutting Tools

(Teacher Information Sheet)

cutting shears - used for cutting fabrics. The cut edge is smooth.

pinking shears - used for cutting to keep the edges of fabric from raveling. The cut edge is jagged and not smooth.

tailor's shears - larger than cutting shears. They are used for cutting fabric apart, especially heavier fabrics such as woolens.

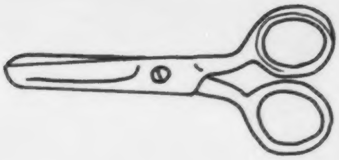
trimming shears - short shears used to trim seams.

buttonhole scissors - used to cut between the edges of the buttonhole.

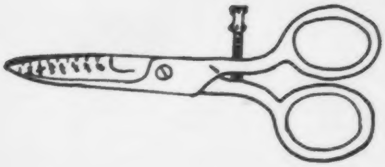
ripping scissors - used for ripping out seams. The blunt ends help prevent unwanted cuts in fabric.

SMALL CUTTING TOOLS
(Transparency)

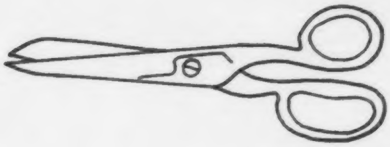
RIPPING SCISSORS



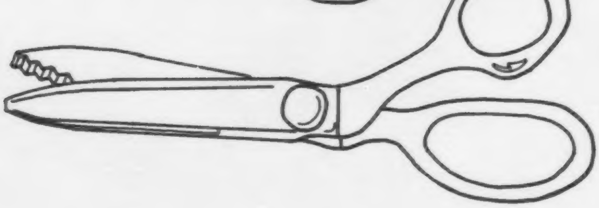
BUTTONHOLE SCISSORS



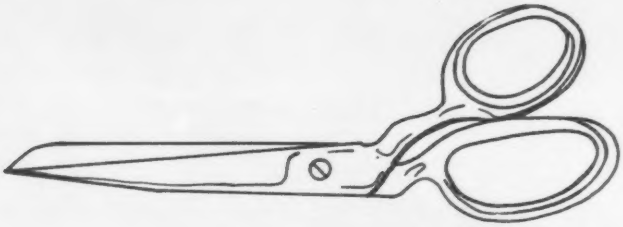
TRIMMING SHEARS



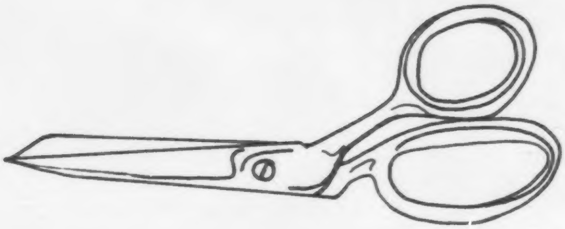
PINKING SHEARS



TAILOR'S SHEARS

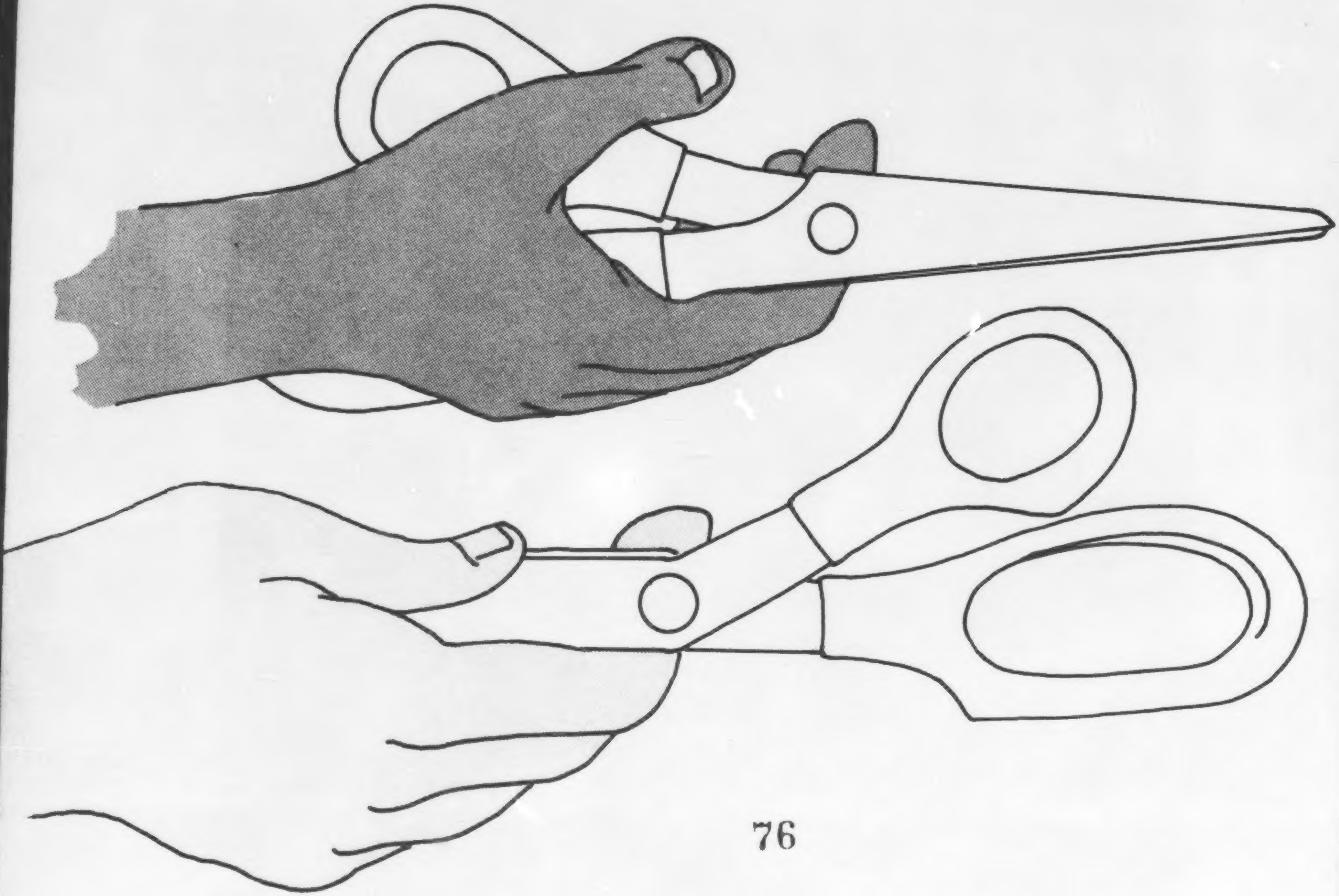


CUTTING SHEARS



WHICH WAY SHOULD YOU HOLD SCISSORS?

(Handout)



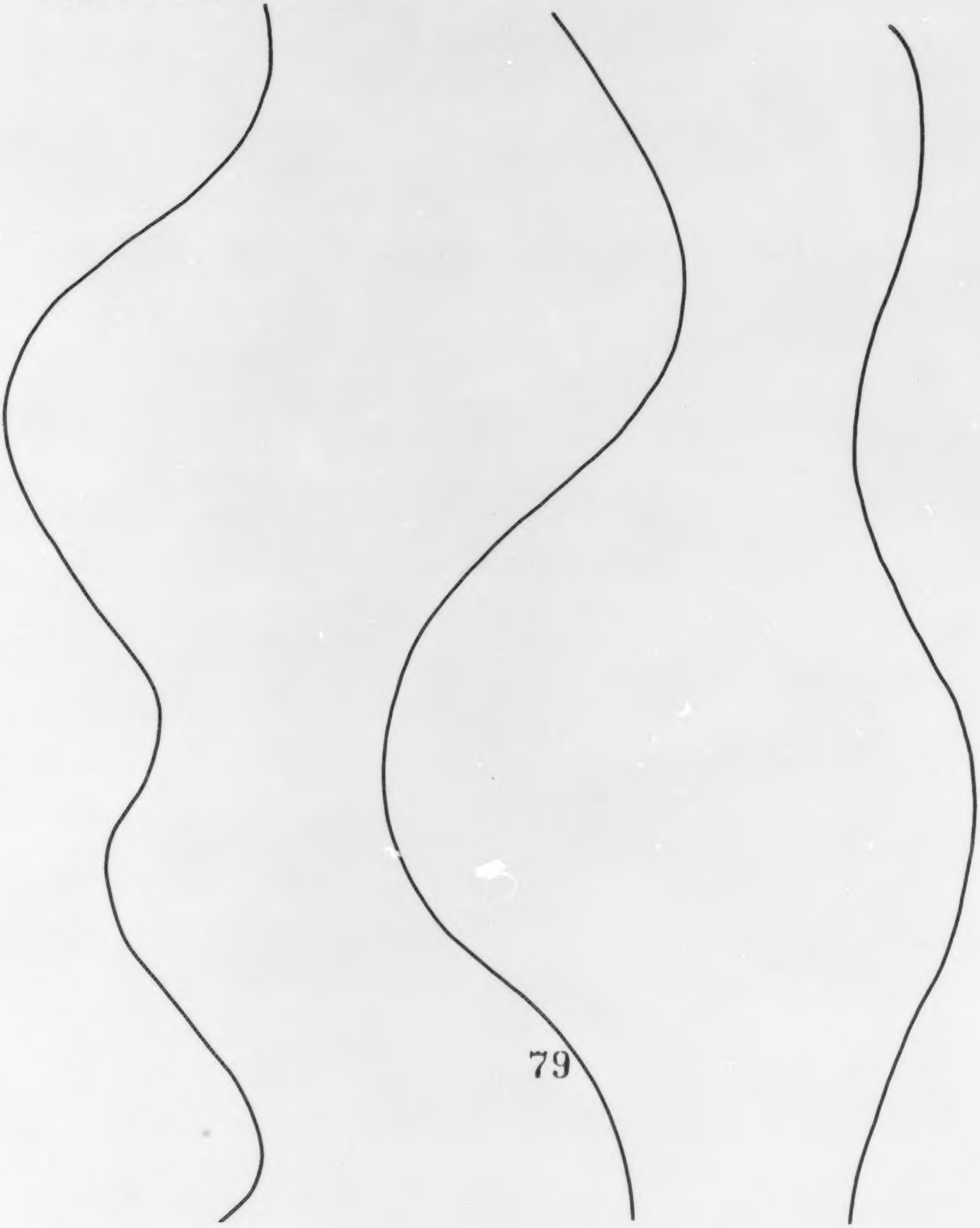
START HERE

CUTTING
(Handout)

DIRECTIONS: Cut down each line. Try to keep the shears on the line.

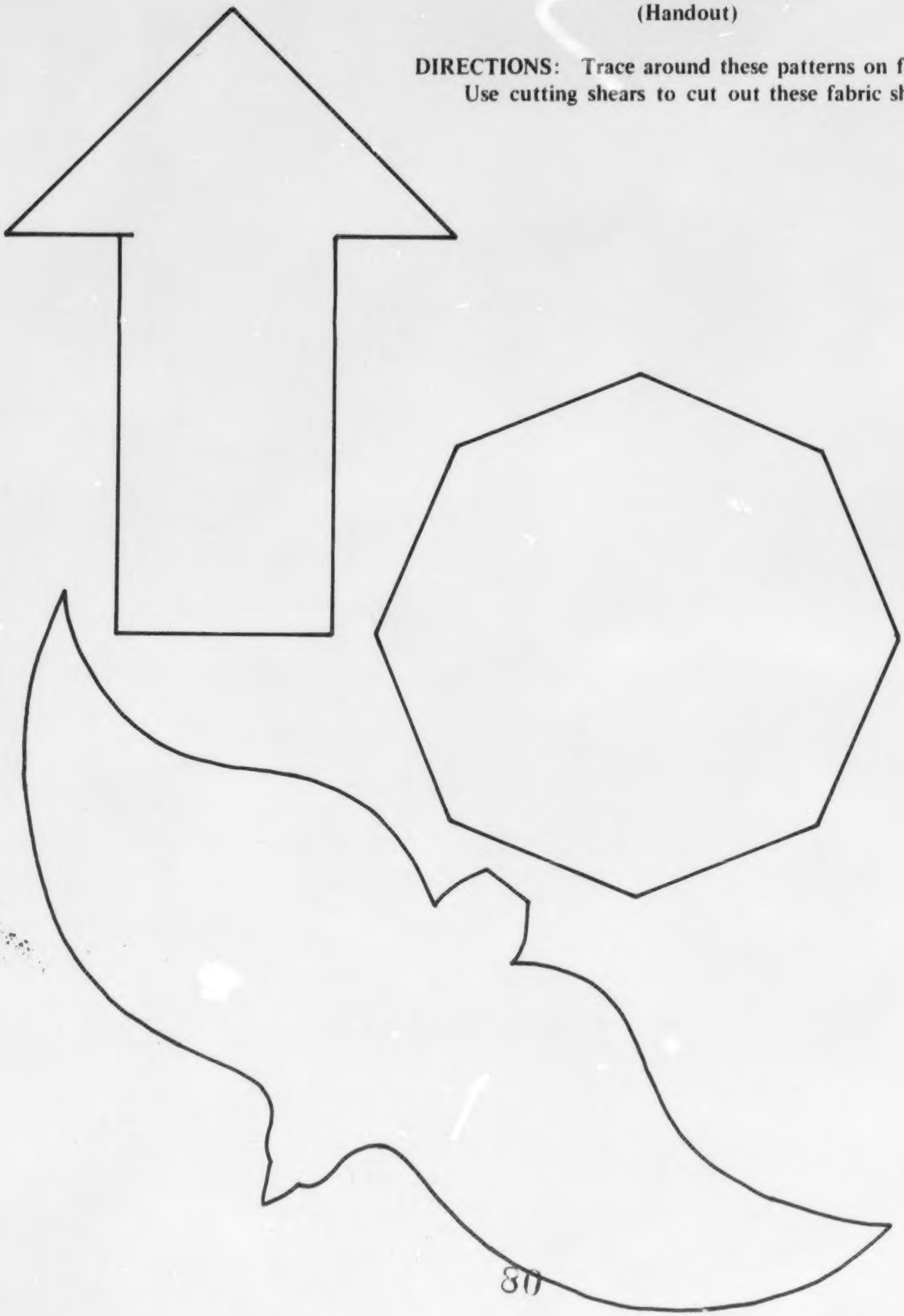
CUTTING CURVED LINES
(Handout)

DIRECTIONS: Cut along each line. Paste the fabric shapes you make on to construction paper and display them on a bulletin board.



CUTTING OUT SHAPES
(Handout)

DIRECTIONS: Trace around these patterns on fabric. Use cutting shears to cut out these fabric shapes.



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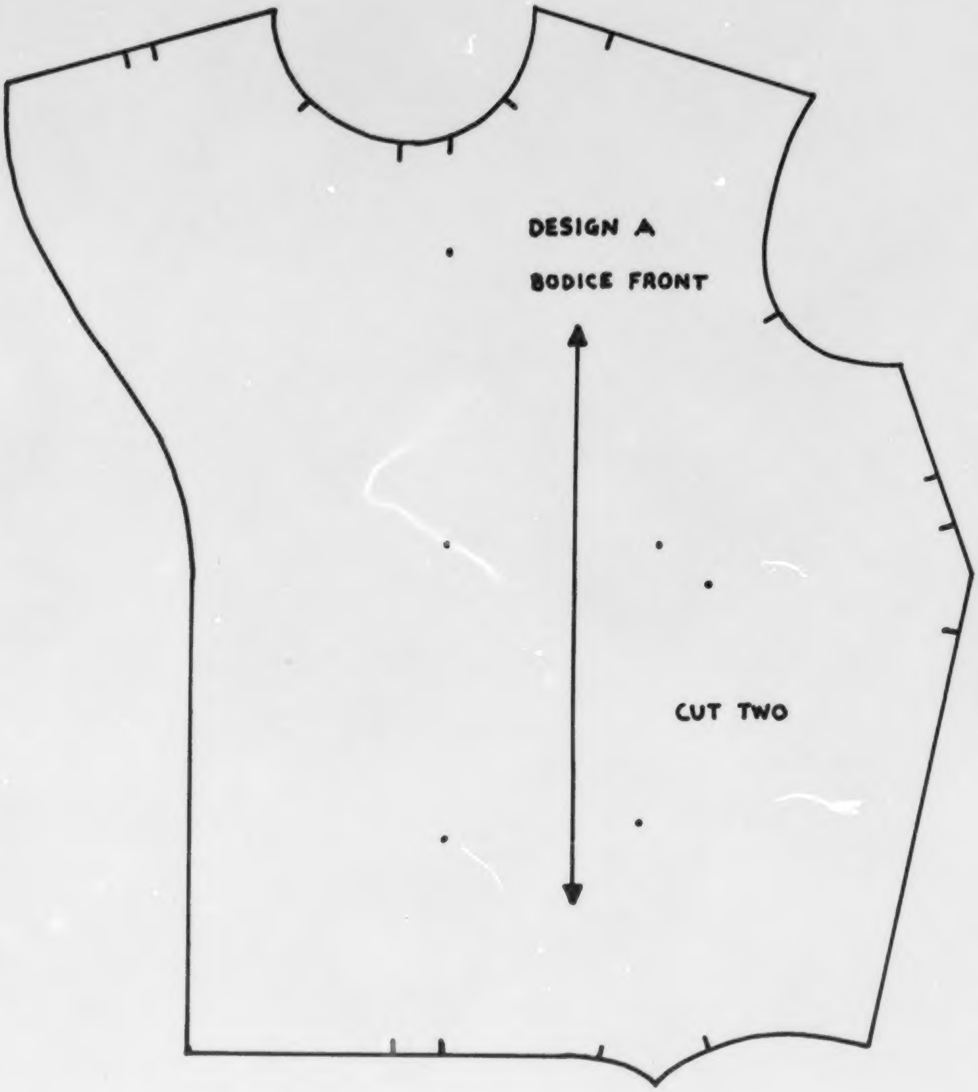
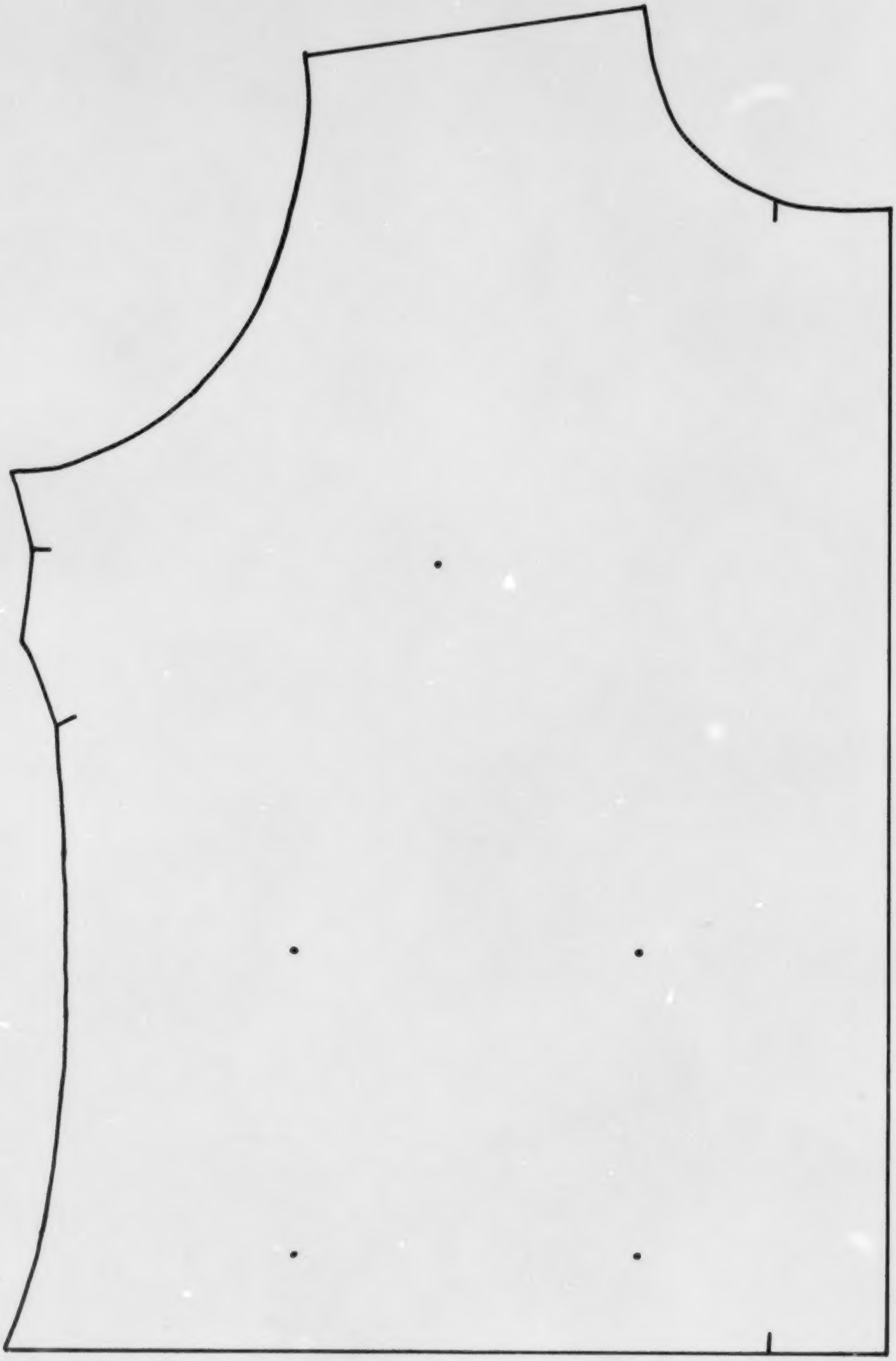
BODICE PATTERN



81

BODICE PATTERN



CHECKLIST FOR CUTTING
(Evaluation Sheet)

The student is able to:	YES	NO	Degree of Skill
1. Select appropriate scissors or shears.			
2. Cut smoothly.			
3. Cut without harming fabric.			
4. Cut on the cutting lines.			
5. Handle shears carefully.			

SEWING TOOLS AND EQUIPMENT

Small Marking Tools

COMPETENCY: Ability to select, use, store, and care for small sewing tools.

SUB-COMPETENCY: Ability to identify, use, and store tools used for marking.

WORDS TO KNOW:
- tracing wheel
- tracing paper
- marking chalk
- tailor's chalk
- skirt marker
- hem gauge

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Identify the small tools used for marking (C-K)	Listen as your teacher holds up each small tool used for marking and states its name. Repeat the name of each tool after your teacher states it. Do all tracing wheels look the same? What are the different types of skirt markers? What does each type use for marking hems? [NOTE TO TEACHER: Ask the students the name of each tool.] View a flipchart with pictures of the small tools used for marking. (See pp. 84-90.) Put puzzles pieces together to form pictures of small marking tools. (See pp. 91-95.) Find the marking tools that are hidden in the picture. Circle each marking tool and state the name of the tool to your teacher. (See p. 96.) Play "Marking Tools Concentration" to learn to identify small tools used for marking. Choose two cards. If the cards match, state the name of the tool that is pictured on the cards. The student with the most pairs of cards wins. (See pp. 97-99.) Use the worksheet to identify the small marking tools. In each of the six rows across, place an "X" on the picture that is the tool listed in the column on the left. (See p. 100.) [NOTE TO TEACHER: You may need to read out the words in the left column.] View a transparency showing pictures of the marking tools. State the name of the tool as your teacher points to each picture. (See p. 101.)

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Describe the tools used for marking (C-C)	Sit in a circle and pass around the tools used for marking. Describe the main feature of each tool. What can you remember most about the tracing wheel? How does the handle look? Describe the wheel. What two types of wheels can the tracing wheel have? Why does the tracing paper come in different colors? Which marking tool may have a brush on the end?
Cite how to use a tracing wheel and tracing paper (C-K)	Watch as your teacher uses a tracing wheel and tracing paper to mark lines on butcher paper. Notice how your teacher moves the tracing wheel along the lines. Which side of the tracing paper is next to the butcher paper? How does the tracing wheel make some of the color come off of the tracing paper and onto the butcher paper? [NOTE TO TEACHER: Use a dark color of tracing paper to mark the line on the light colored butcher paper.]
	Watch a demonstration on how to use a tracing wheel and tracing paper to mark fabric. Will the tracing wheel and tracing paper work on wool fabric? Why?
	View a transparency to learn where the tracing paper should be placed when marking. (See p. 102.) Where does the cardboard go? Which side of the tracing paper is on the fabric?
Explain how to use the tracing wheel and tracing paper (C-C)	Describe how to use a tracing wheel. Trace by applying pressure as you move the tracing wheel along a line. (See p. 103.) Where do you put the tracing paper? Where do you put the cardboard?
Identify the side of fabric for marking (C-C)	Watch as your teacher shows you how to tell the right side and the wrong side of fabric. Is the center crease on cottons and linens usually on the right side or the wrong side of the fabric? Which side of woolens and most other fabrics is packaged towards the center of the bolt? Which side of the fabric do you see when you are wearing it? In your own words, state how you can tell the right and the wrong side of fabric. Do you make pattern markings on the wrong side or the right side of fabric? [NOTE TO TEACHER: A small safety pin placed on the wrong side of fabric will aid blind or visually impaired students. A strip of masking tape placed on the wrong side of the fabric would also be helpful.]
Describe the right and wrong side of fabric (C-C)	Explain to the class how to tell the right and wrong side of a fabric sample. Is it easy to tell the right and wrong sides of all fabrics?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Try to use a tracing wheel and tracing paper to mark fabric (P-GR)	Place the tracing paper on top of a piece of fabric. Is the carbon on the tracing paper next to the wrong side of the fabric? Be sure you will be marking on the wrong side of the fabric. Use a tracing wheel to mark lines of a pattern onto a piece of fabric. Remember, if you are marking each pattern piece separately you will need to mark a matching pair when you are sewing. (See pp. 104-105 for pattern examples.) [NOTE TO TEACHER: Put cardboard under the fabric to protect the table top.]
	Practice putting the markings of a pattern piece onto a piece of fabric. (See p. 106 for pattern.) Mark each part that the arrow is pointing to. [NOTE TO TEACHER: Assist blind or visually impaired students by marking darts, notches, and other markings on the pattern pieces. Small dots made of brightly colored adhesive backed tape or cut from felt can be placed on the pattern. Use two dots for a dart, one dot for a notch, etc. Braille, felt, or tape letters can also denote whether the pattern piece is a skirt front (SF) or a blouse front (BF), etc. Grainlines can be marked with masking tape or with bias tape stitched into place. Buttonholes, zipper endings, and pocket placement could be marked with staples. Use different types of markings when pattern contains several types of markings as all felt or all tape markings might confuse the student. It is very important that the student understand the markings you are using.]
State how to mark two pieces of fabric at one time (C-K)	Watch your teacher demonstrate how to mark two pieces of fabric at one time. Notice that your teacher is marking on the wrong side of the fabric. How many pieces of fabric did your teacher use? On which side of the fabric did your teacher place the pattern? Which side of the tracing paper was folded to the inside? How was the tracing paper placed between the fabric and pattern? What is used as a guide for making straight lines when using the tracing wheel? Why did your teacher place cardboard or a magazine under the work?
Explain how to mark two pieces of fabric at one time (C-C)	Give an example of marking two pieces of fabric at one time by using the materials your teacher has arranged on a table. [NOTE TO TEACHER: Have fabric, tracing paper, pattern, tracing wheel, ruler, and magazine or cardboard on table.] Explain to your classmates how to place the fabric, tracing paper, and pattern. Did you protect the table by working on a magazine or cardboard?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Try to use a tracing wheel to mark two pieces of fabric at one time (P-GR)	Use a real pattern piece to make markings on a piece of fabric. [NOTE TO TEACHER: Use a simple pattern piece that has been pinned to the fabric and to the cardboard. Prepare pattern markings for the blind and visually impaired students.] Ask your teacher for assistance if you are not sure what to mark.
Use a tracing wheel and tracing paper to mark (P-M)	Use a tracing wheel and tracing paper to mark the parts of a pattern onto fabric when you are sewing.
State how to use chalk for marking fabric (C-K)	Watch as your teacher demonstrates how to use marking chalk and tailor's chalk. Notice each step. Will chalk rub off easily? As the teacher states the steps outloud, repeat them as a class: (1) Stick pins into the line or point to be marked all the way through the pattern and both layers of fabric, (2) Turn the fabric over so that the pins are sticking straight up, (3) Make chalk marks where the pins are on the wrong side of the fabric, (4) Turn the fabric over so that the pattern side is up, (5) Remove pattern, (6) Make chalk marks at each pin, (7) Remove pins, and (8) Connect the marks with a chalk line. In your own words, tell how to use chalk to mark fabric.
Give examples of using chalk to mark fabric (C-C)	Illustrate using marking chalk and tailor's chalk to mark fabric. Mark fabric with one of the following pattern markings: darts, fold line, buttonholes, buttons, pockets, or dots.
Practice using chalk to mark fabric (P-GR)	Use marking chalk and tailor's chalk to mark fabric. Under your teacher's supervision, place pins through the pattern and fabric and place chalk marks where the pins are. Repeat using different patterns and colors of fabric. Remember you must be able to see the markings on the fabric.
Use chalk to mark fabric (P-M)	Use marking chalk and tailor's chalk when it is necessary to put marks on fabric.
State how to use a skirt marker (C-K)	Watch as your teacher demonstrates how to use a skirt marker, with a student as a model. Notice that one of the skirt markers has a bulb and uses chalk to mark, one skirt marker uses pins, and the other skirt marker is a combination pin-chalk marker. Which skirt marker requires another person to do the pinning? Which skirt marker allows the person to mark her own skirt? Why should the front of the skirt be marked first? How close together should you make pin or chalk markings around the skirt?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Take turns stating how to use a skirt marker. What type of garments are skirt markers used on? Why can't you use a skirt marker to mark darts? How do you adjust a skirt marker to the correct height?
Attempt to use a skirt marker (P-GR)	Practice pushing pins through a piece of fabric without using the skirt marker. Practice pushing pins through a piece of fabric using the skirt marker. With the skirt marker on the desk, clamp the fabric, and attempt to push pins through the fabric as if you were pinning up a hem. Practice using the chalk type of skirt marker. Do you move around the marker? Did the chalk line show up on the fabric? Is the chalk line straight?
Practice using a skirt marker to pin up a hem (P-GR)	Divide in pairs and take turns using the skirt marker to mark around the edge of a skirt or dress. [NOTE TO TEACHER: To save wear and tear on students' clothes, use old discarded clothing. Discarded clothing can often be found at garage and rummage sales at closing time when leftover items are sometimes sold as rags. Have the students practice with both chalk and pin skirt markers.] Use a skirt marker and mark around the edge of a dress or skirt that is on a dress form. Your teacher will tell you the distance to measure from the floor for the desired hem length. [NOTE TO TEACHER: These garments with the marked hem length can be used later when the students are marking the hem depth with a hem gauge.]
Use a skirt marker (P-M)	Use a skirt marker when it is necessary to mark a hem in a garment.
State how to use a hem gauge (C-K)	Watch as your teacher demonstrates how to use a hem gauge. Describe the hem gauge. Why is one side curved? In your own words, tell how to use the hem gauge.
Attempt to use a hem gauge (P-GR)	Practice using a hem gauge by measuring a 2-inch hem depth on a scrap of fabric. Measure from the chalk or pin marking on the fabric. [NOTE TO TEACHER: Prepare 18 inch squares of fabric for the students to use. Mark fabric with chalk or pins to simulate markings made by using a skirt marker.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Practice using the hem gauge to measure each hem depth on the scrap of fabric as your teacher tells you the amount to measure. [NOTE TO TEACHER: Use 1 inch, 3 inch, 2½ inch, 3½ inch, and 2 inch hem depths for the students to measure.]
Use a hem gauge (P-M)	Use a hem gauge to measure the hem depth of a skirt or dress. [NOTE TO TEACHER: The students can measure the garments that were marked with the skirt marker in a previous learning experience.]

WORDS TO KNOW

About Small Marking Tools

(Teacher Information Sheet)

tracing wheel - a small wheel that turns and a handle. The wheel has a sharp, pointed or smooth edge. It is used with tracing paper.

tracing paper - a colored carbon paper that is placed between the pattern and fabric that is to be marked.

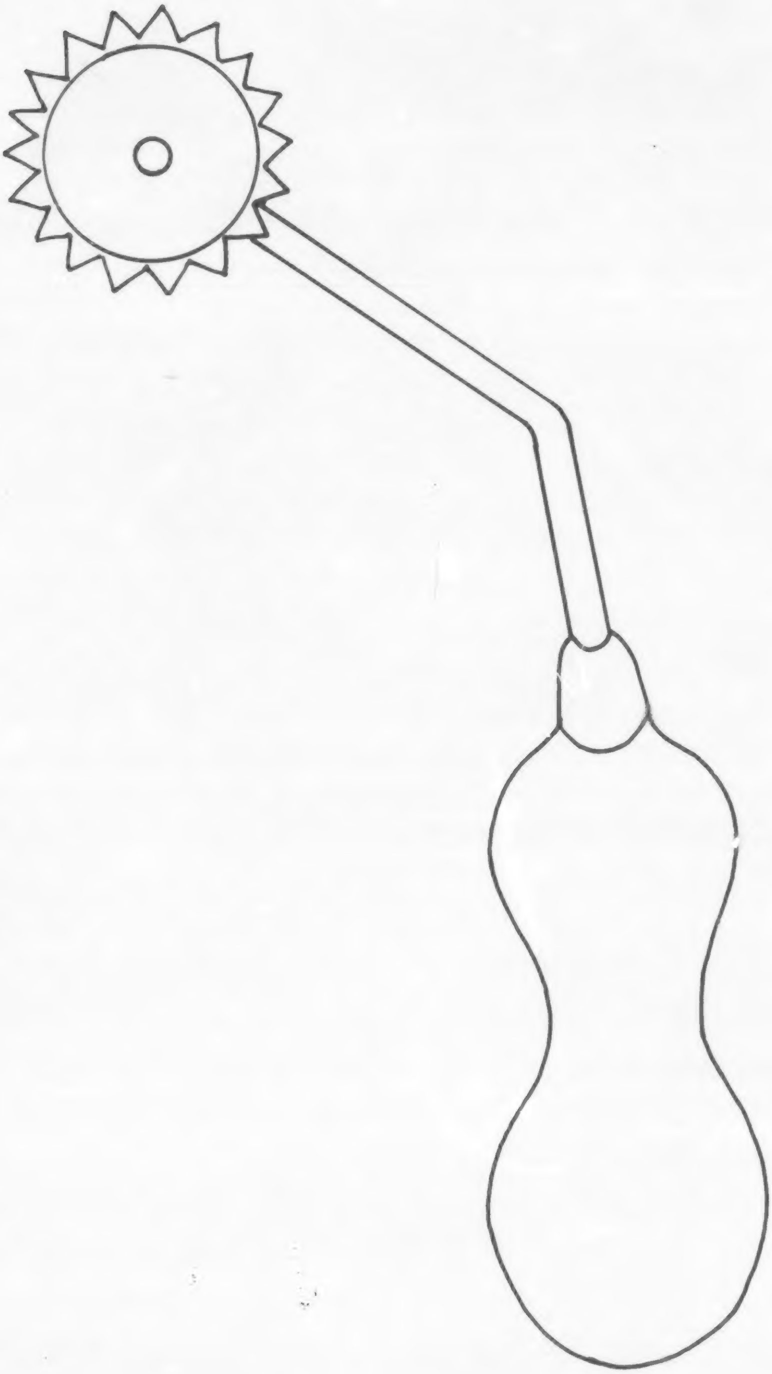
marking chalk - a white or colored substance used for marking pattern symbols on fabric. It looks like a pencil with a brush on one end.

tailor's chalk - a white or colored wedge-shaped piece of chalk used for marking fabric.

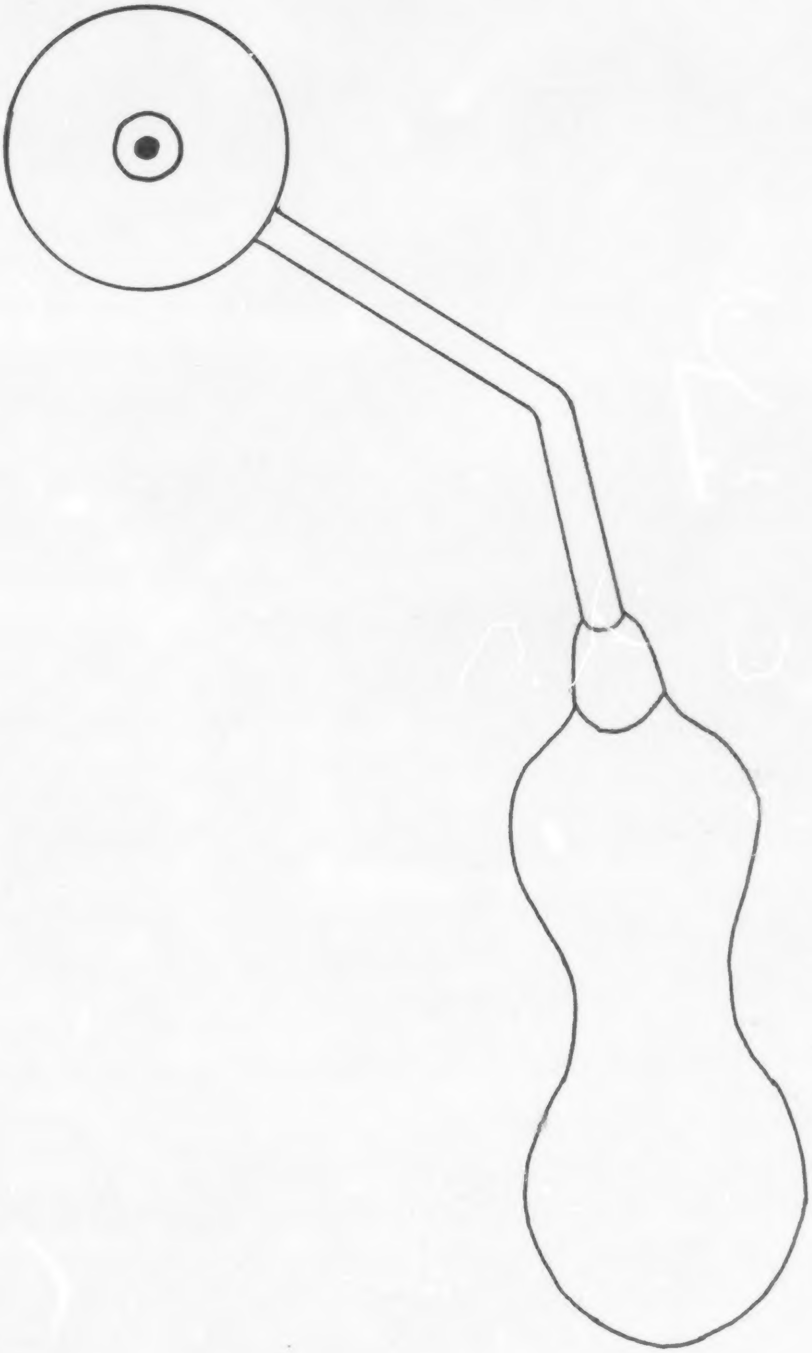
skirt marker - a wooden ruler on a stand with a slider that adjusts to different heights for marking skirt hems. One type has slots for pin placement. Another type of skirt marker uses a bulb and chalk for marking.

hem gauge - a small ruler with a curved side and a straight side. It is used for measuring and pressing hems.

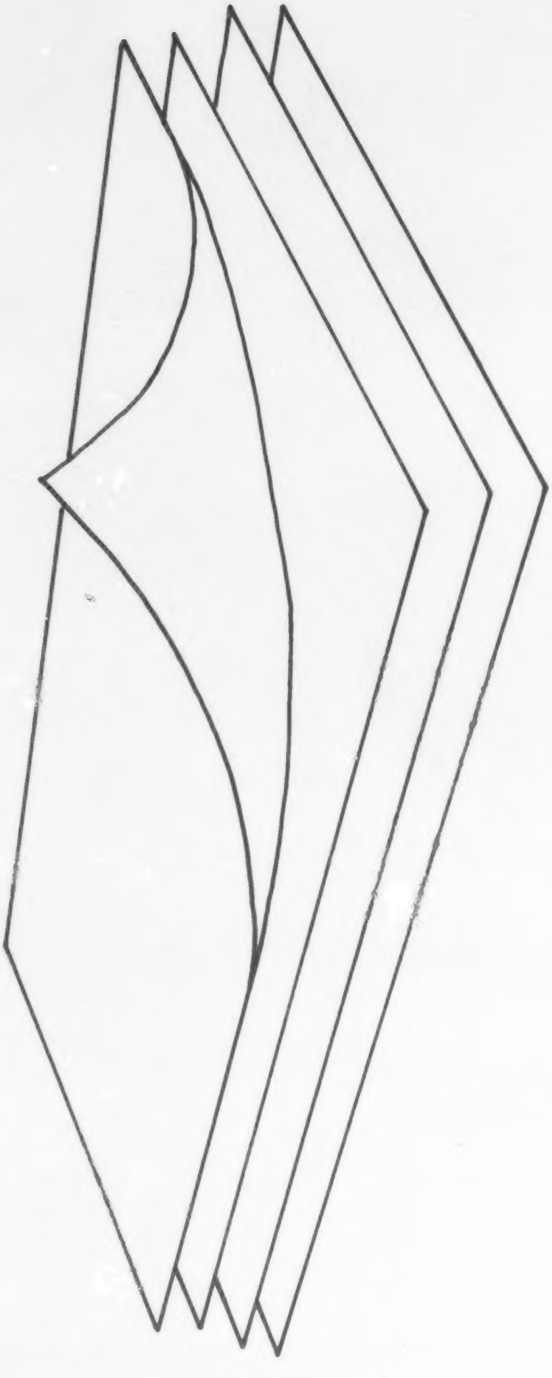
TRACING WHEEL



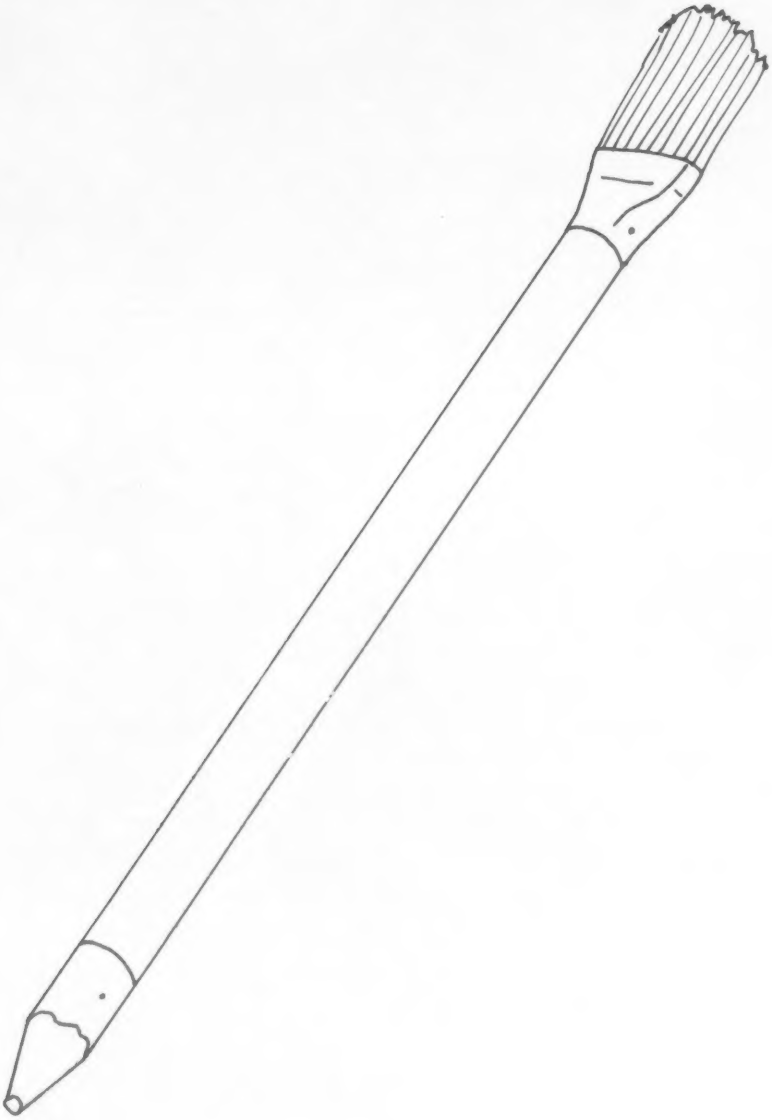
SMOOTH-EDGED TRACING WHEEL



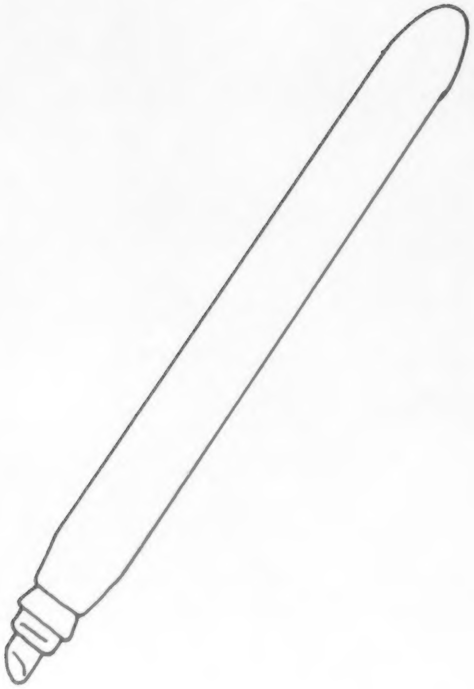
TRACING PAPER



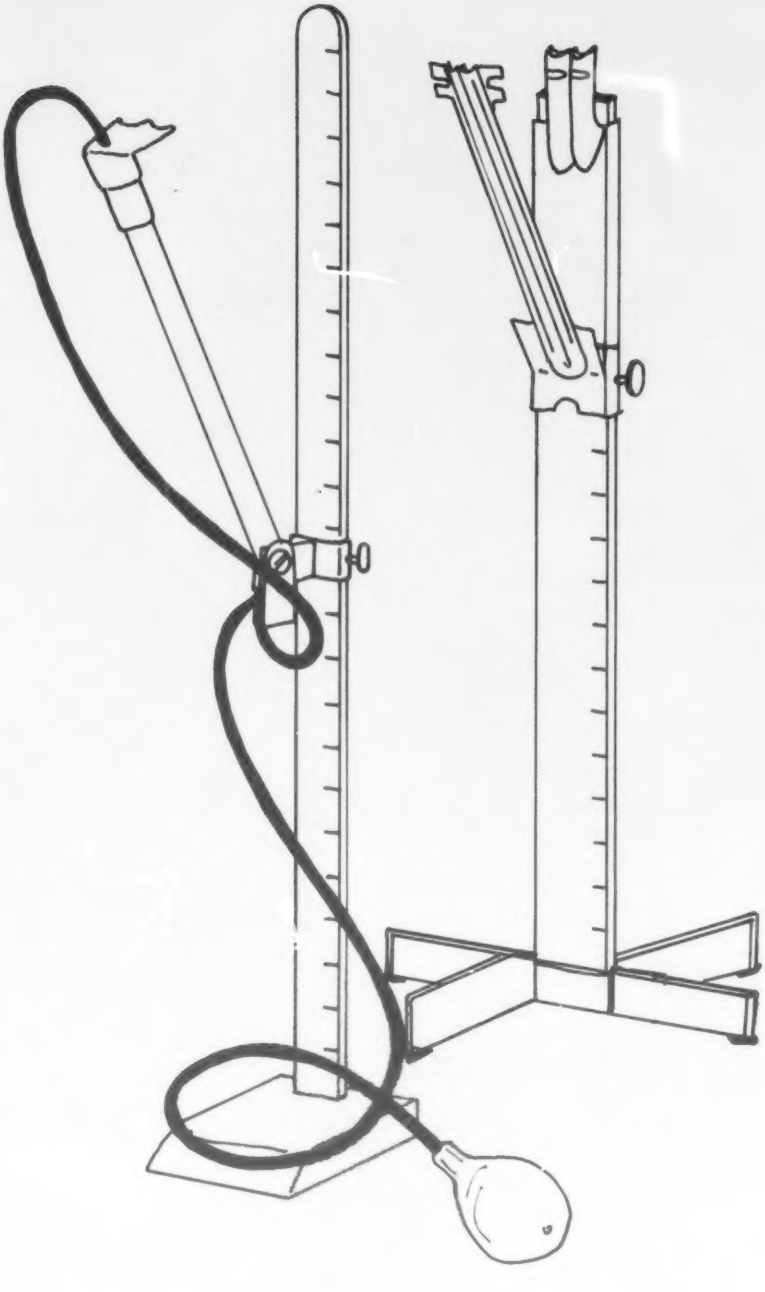
MARKING CHALK



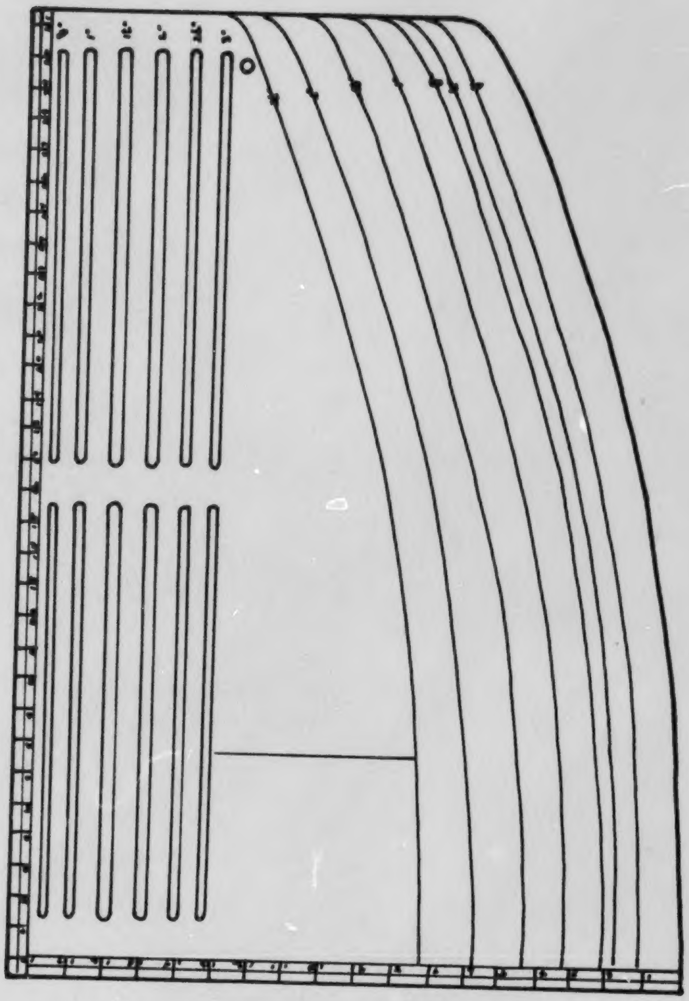
TAILOR'S CHALK

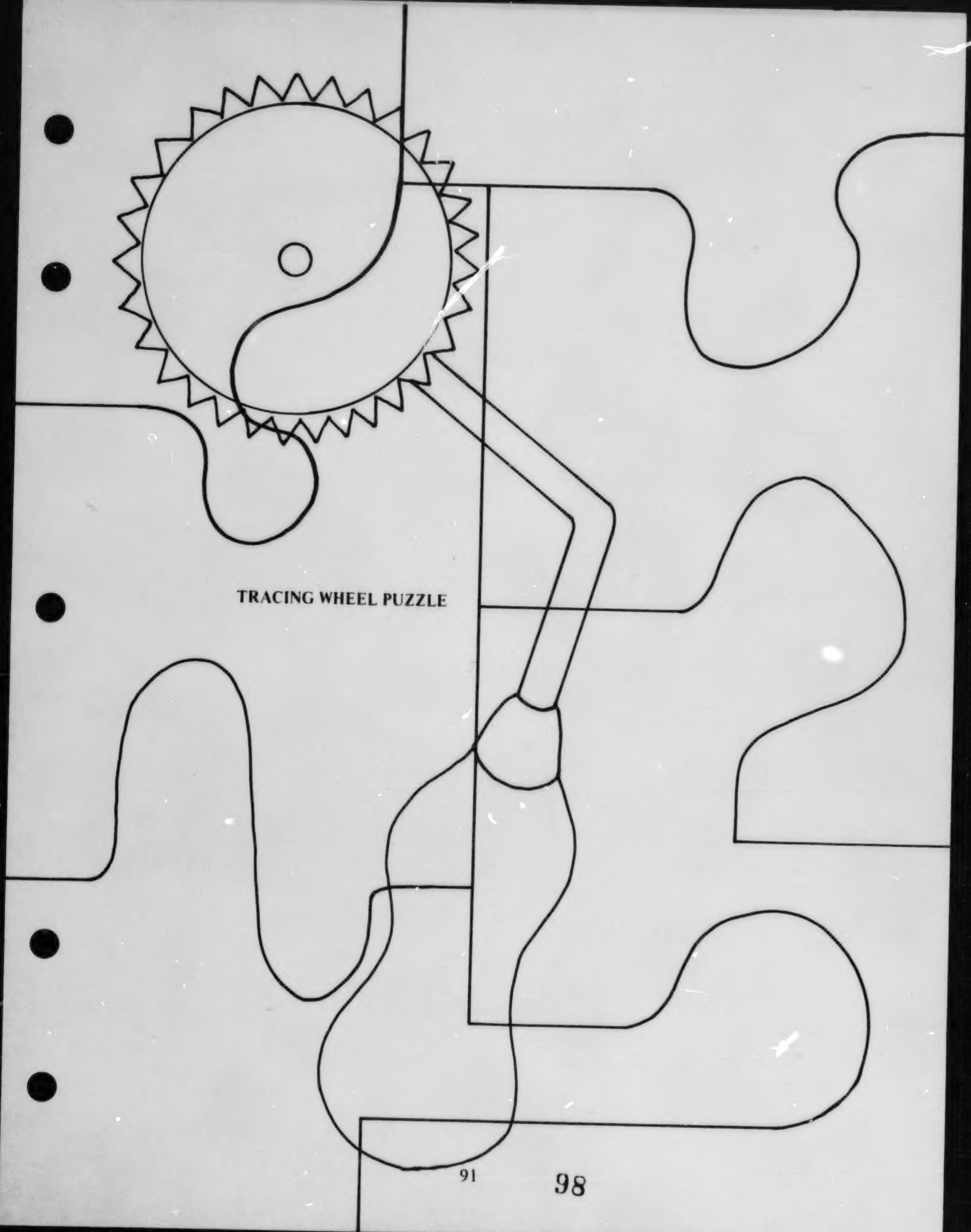


SKIRT MARKER

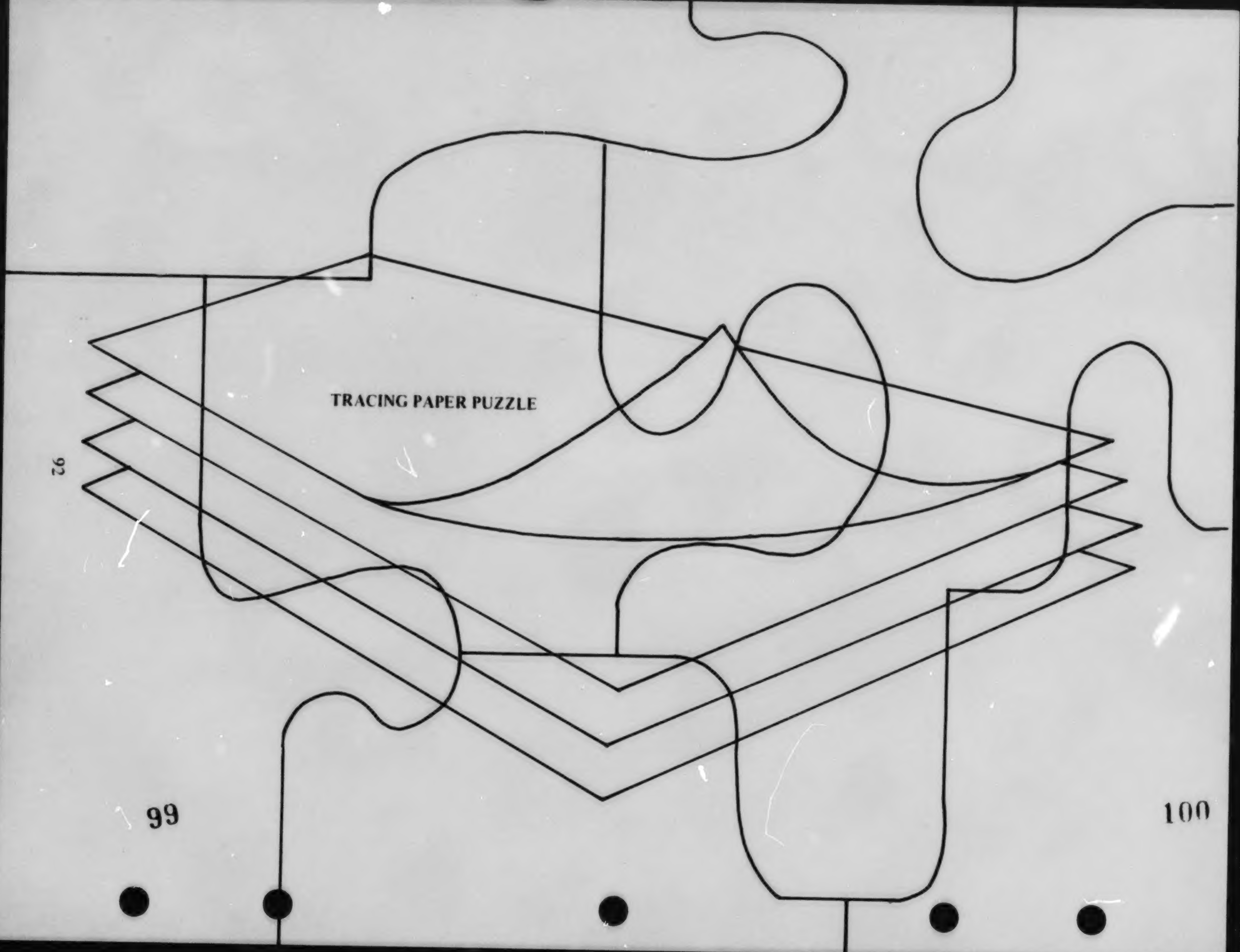


HEM GAUGE





TRACING WHEEL PUZZLE


TRACING PAPER PUZZLE
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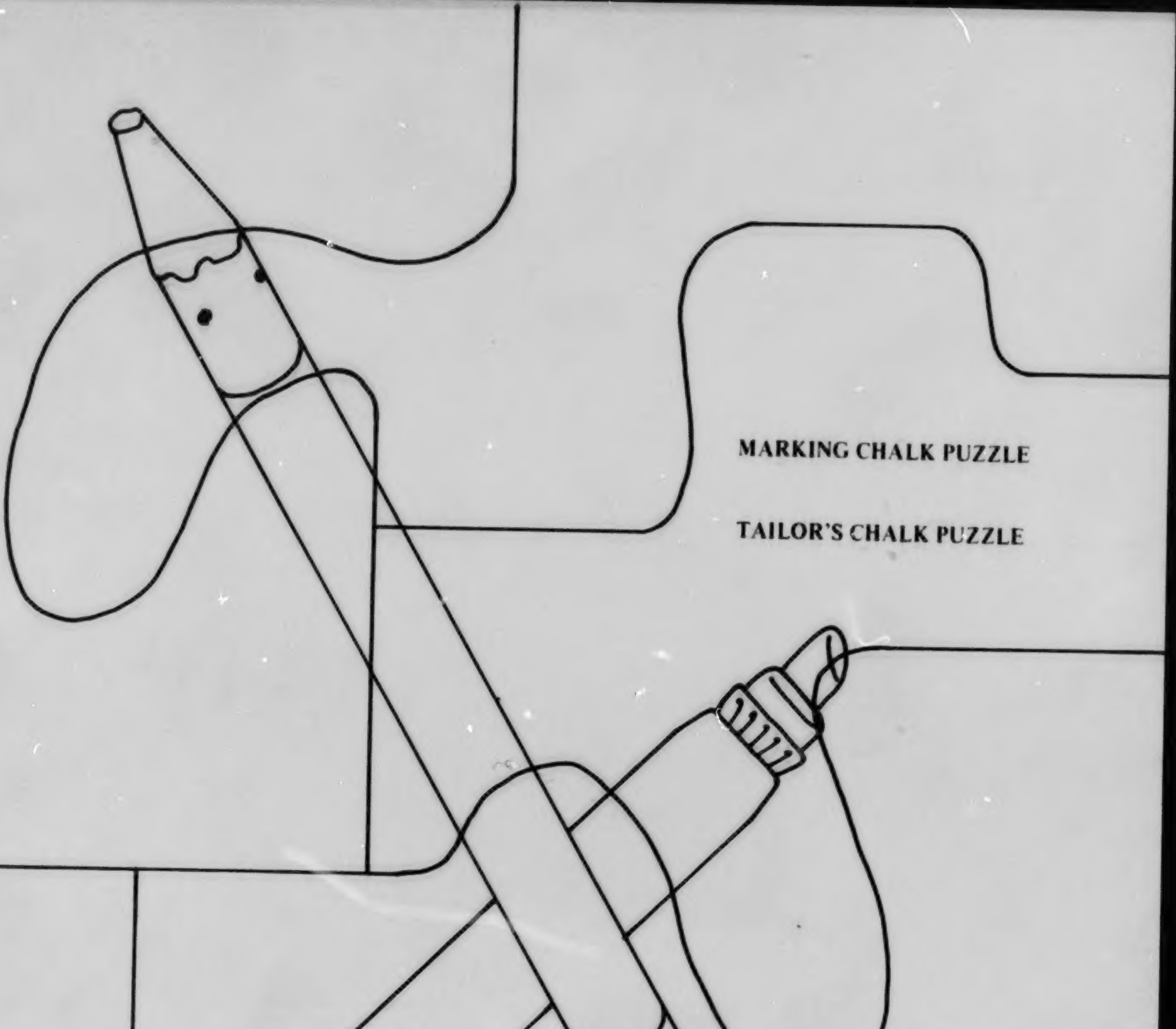
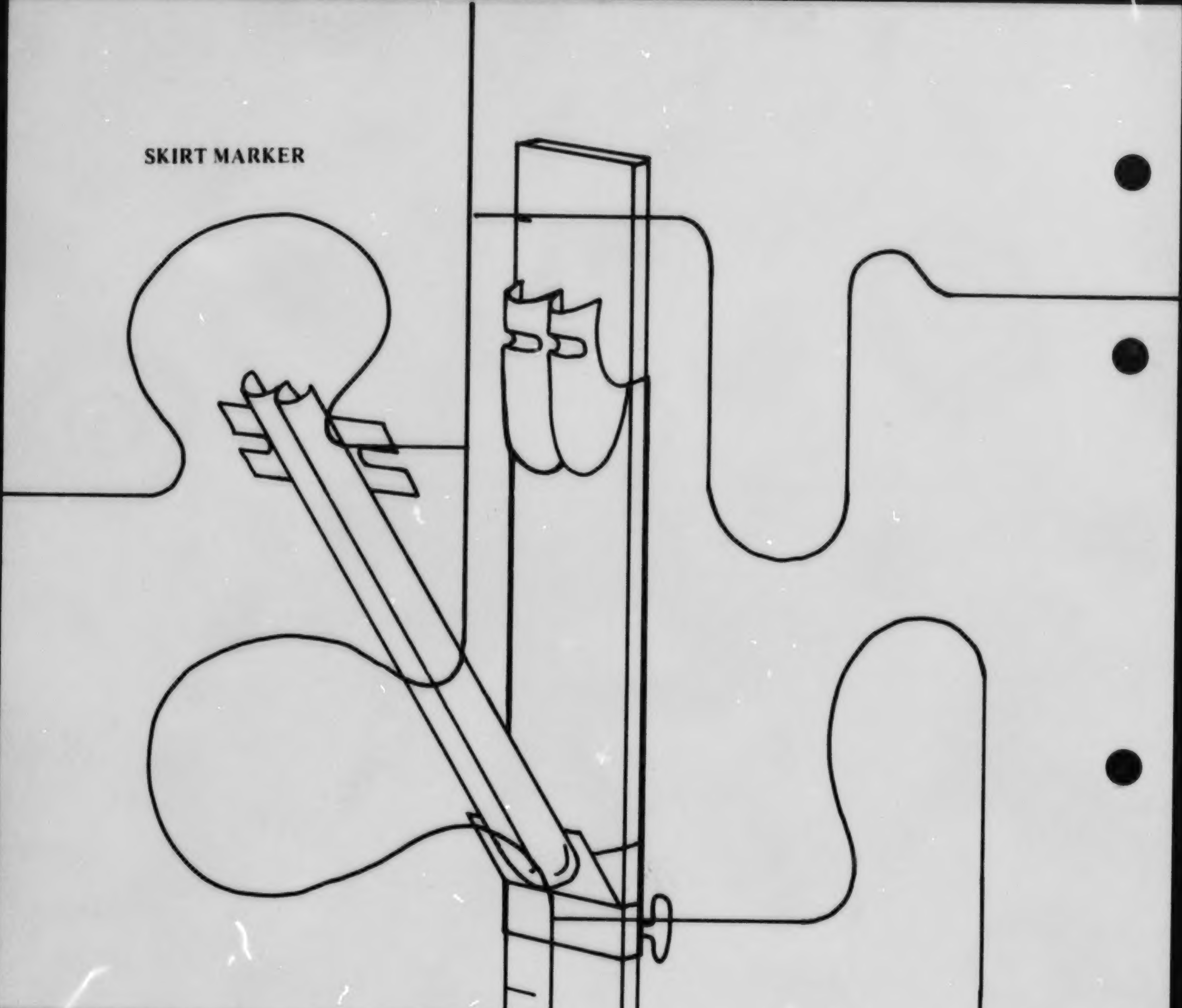


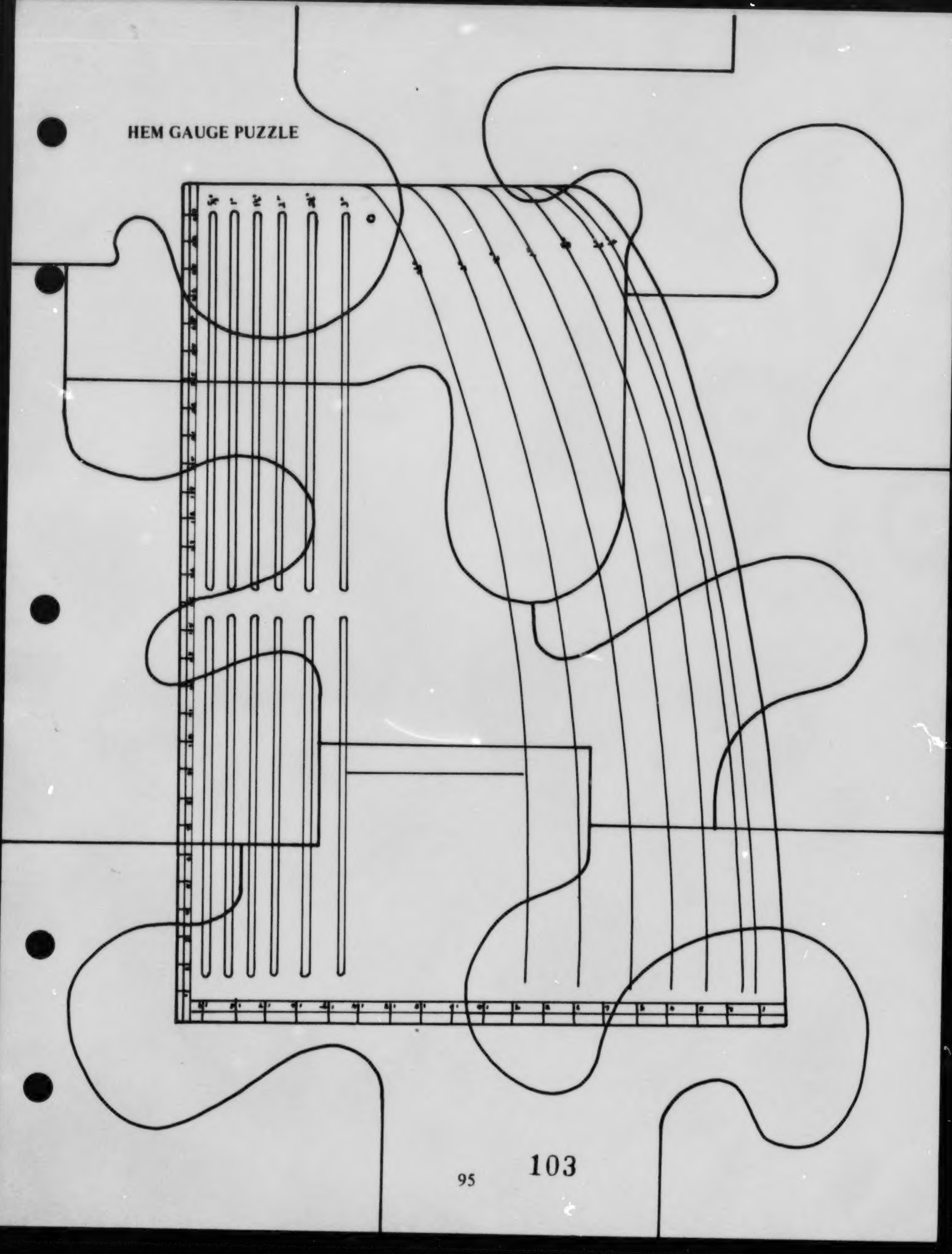
MARKING CHALK PUZZLE

TAILOR'S CHALK PUZZLE

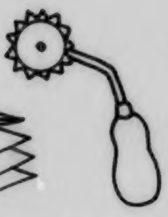
SKIRT MARKER

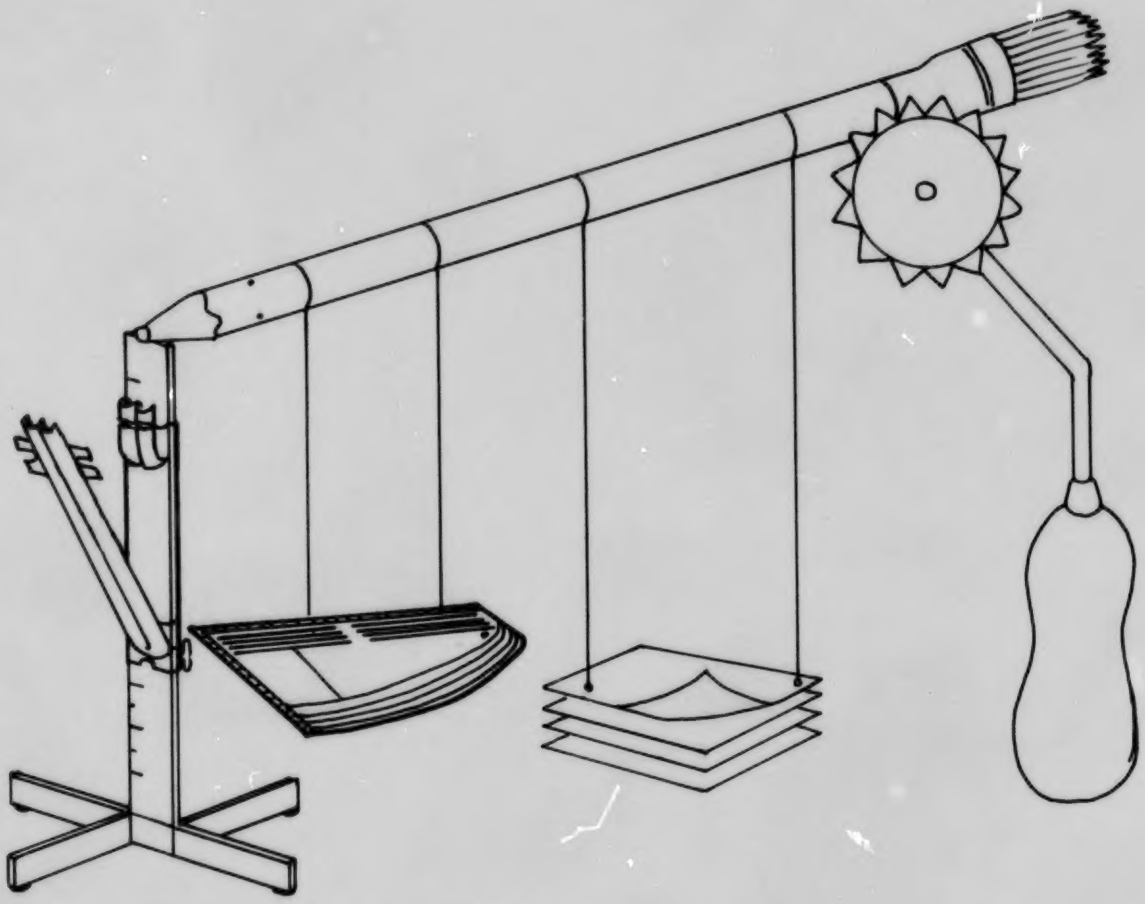


HEM GAUGE PUZZLE



FIND THE HIDDEN MARKING TOOLS





MARKING TOOLS CONCENTRATION
(Teacher Information Sheet)

To Make Cards:

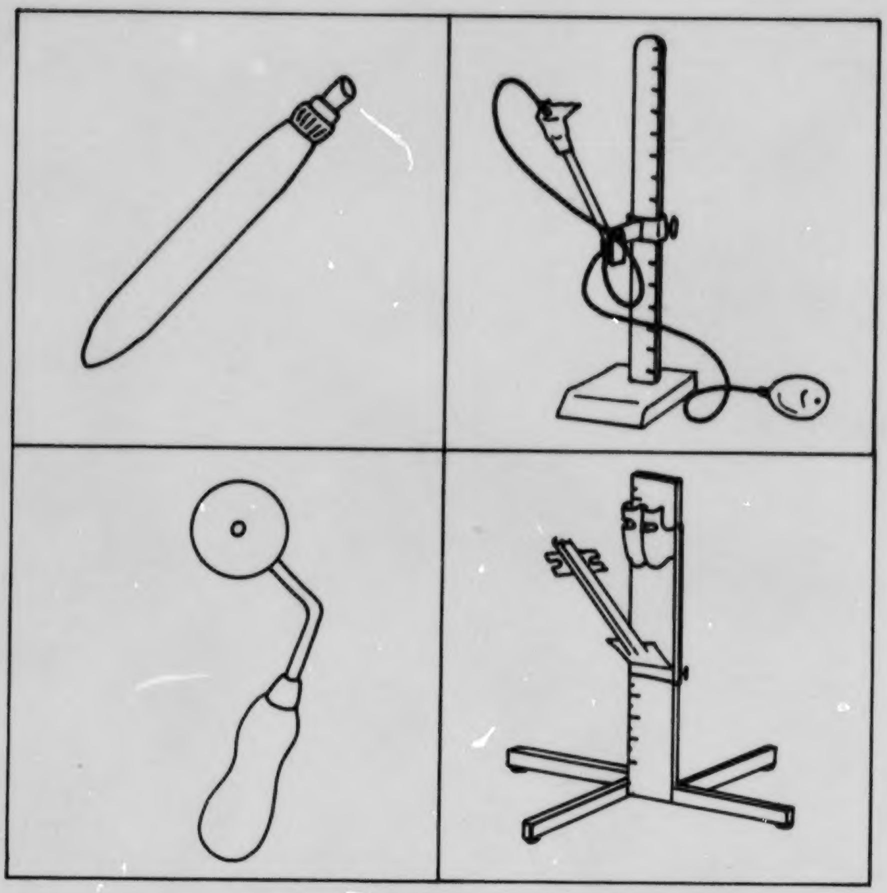
1. Duplicate four sets of pictures of each tool for each 4-6 students.
2. Paste the pictures on index cards or construction paper.

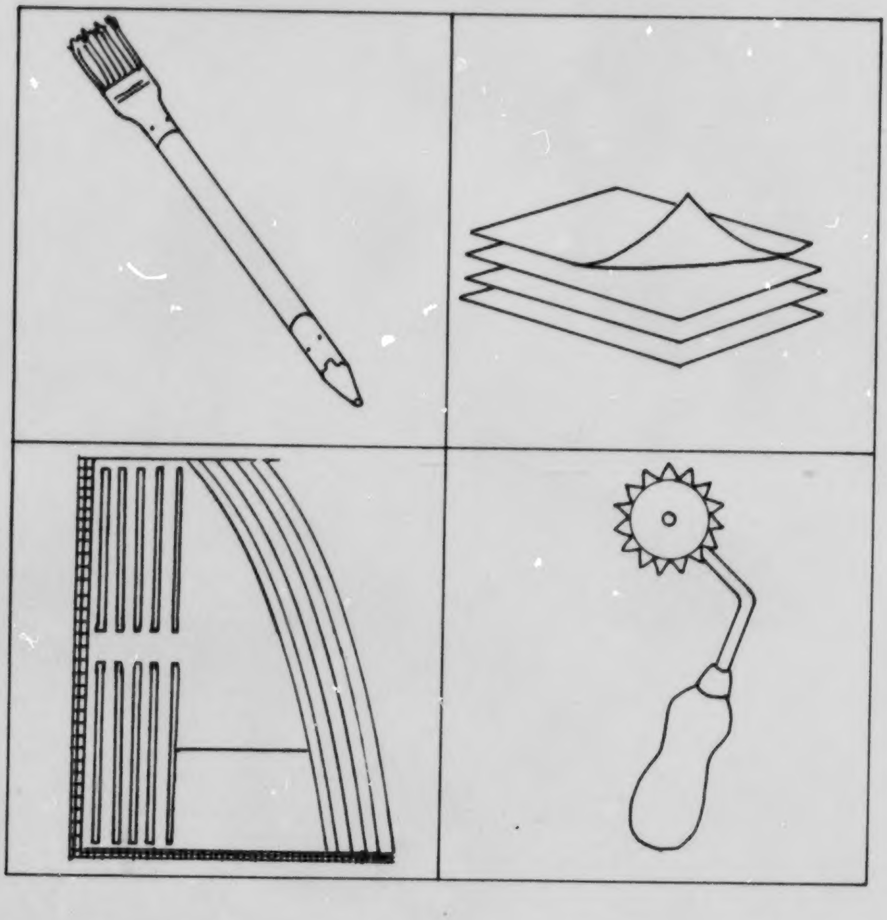
To play the game: (4-6 players)

1. Shuffle the 32 cards and deal them face down on a table so that no two cards touch. Do not try to put the cards in straight rows.
2. Determine which player will start.
3. Player 1: Turn two cards face up, one at a time. Do not move the cards away from the place where they were on the table.
4. If the two cards are alike, name the marking tool, then remove the two cards to your own pile of pairs won. Then turn up two more cards.
5. When two cards are turned up which are not alike, wait a few seconds so everyone sees them, then turn the cards back face down.
6. The player to the left takes the next turn.
7. Try to remember the cards which have been turned face up then back face down. When it is your turn, turn up one card, then try to remember where another card like it has been turned up. Turn up the card you think is like the first. If you are right, name the marking tool and take the pair of cards.
8. The player with the most cards at the end of play wins.

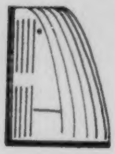
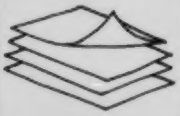
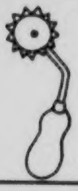
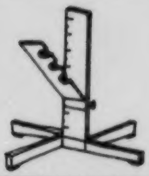
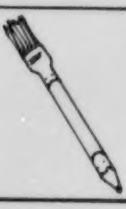
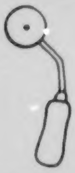
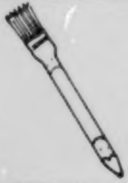
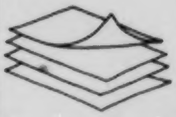
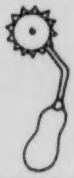
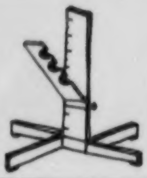
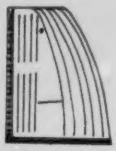
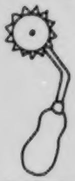
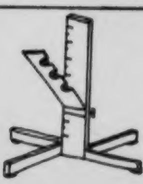
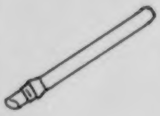
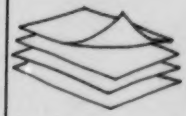
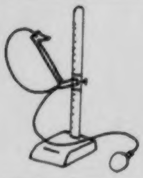
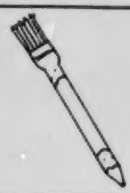
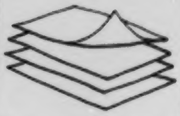
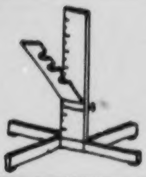
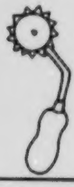
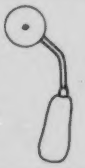
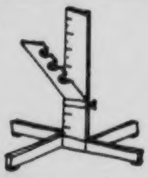
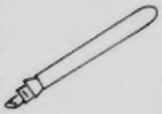
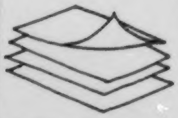
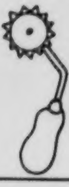
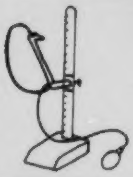
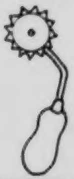
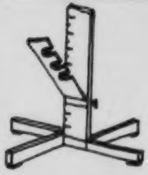
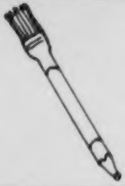
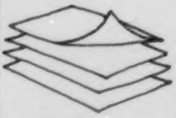
[NOTE TO TEACHER: Additional cards for sewing tools can be added to the set as each is studied. Use a maximum of 52 cards per 4-6 players. Adjust the number of cards of each tool according to the size deck needed. Just remember to use an even number of each tool so pairs can be formed.]

MARKING TOOLS CONCENTRATION

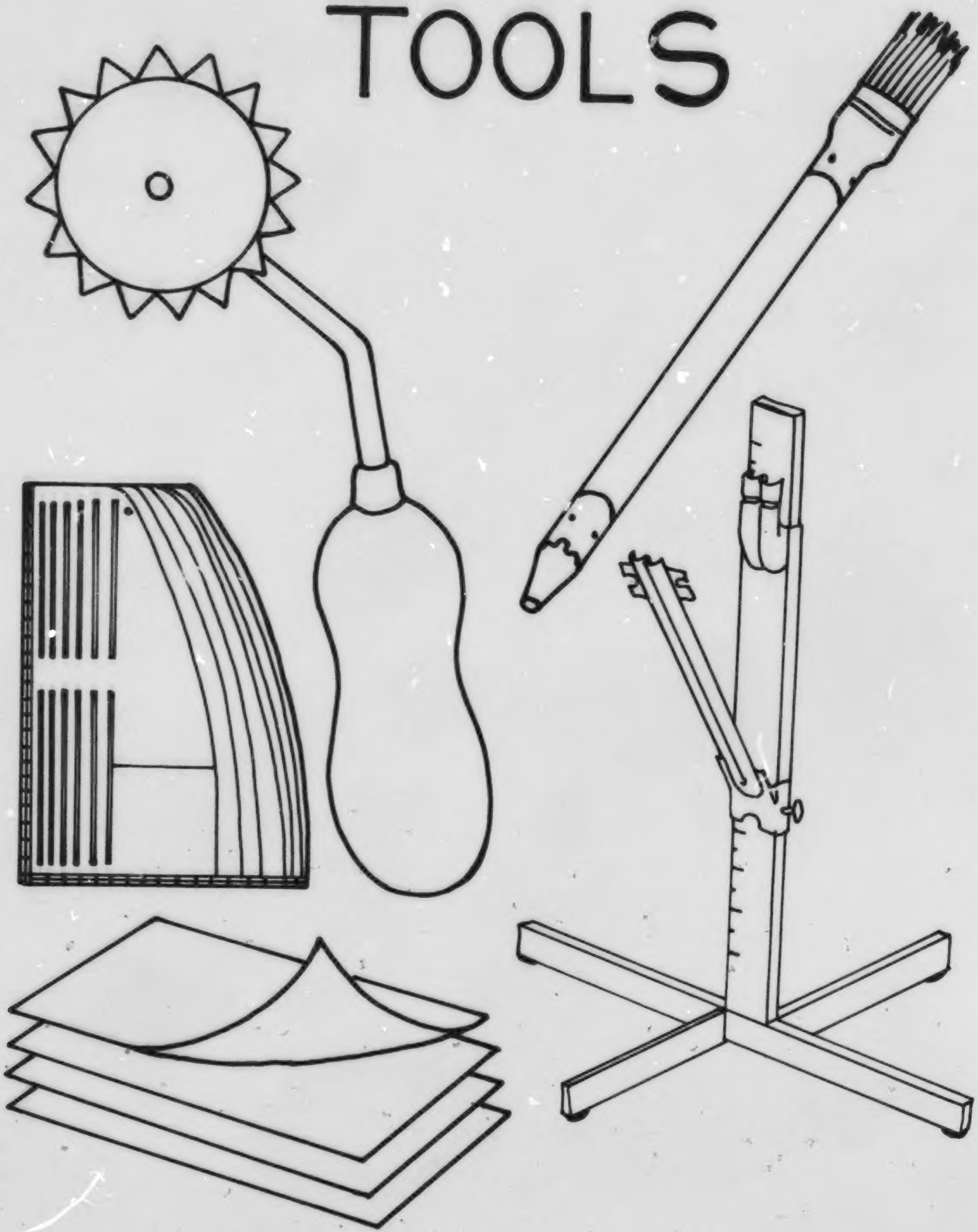




SMALL MARKING TOOLS
(Worksheet)

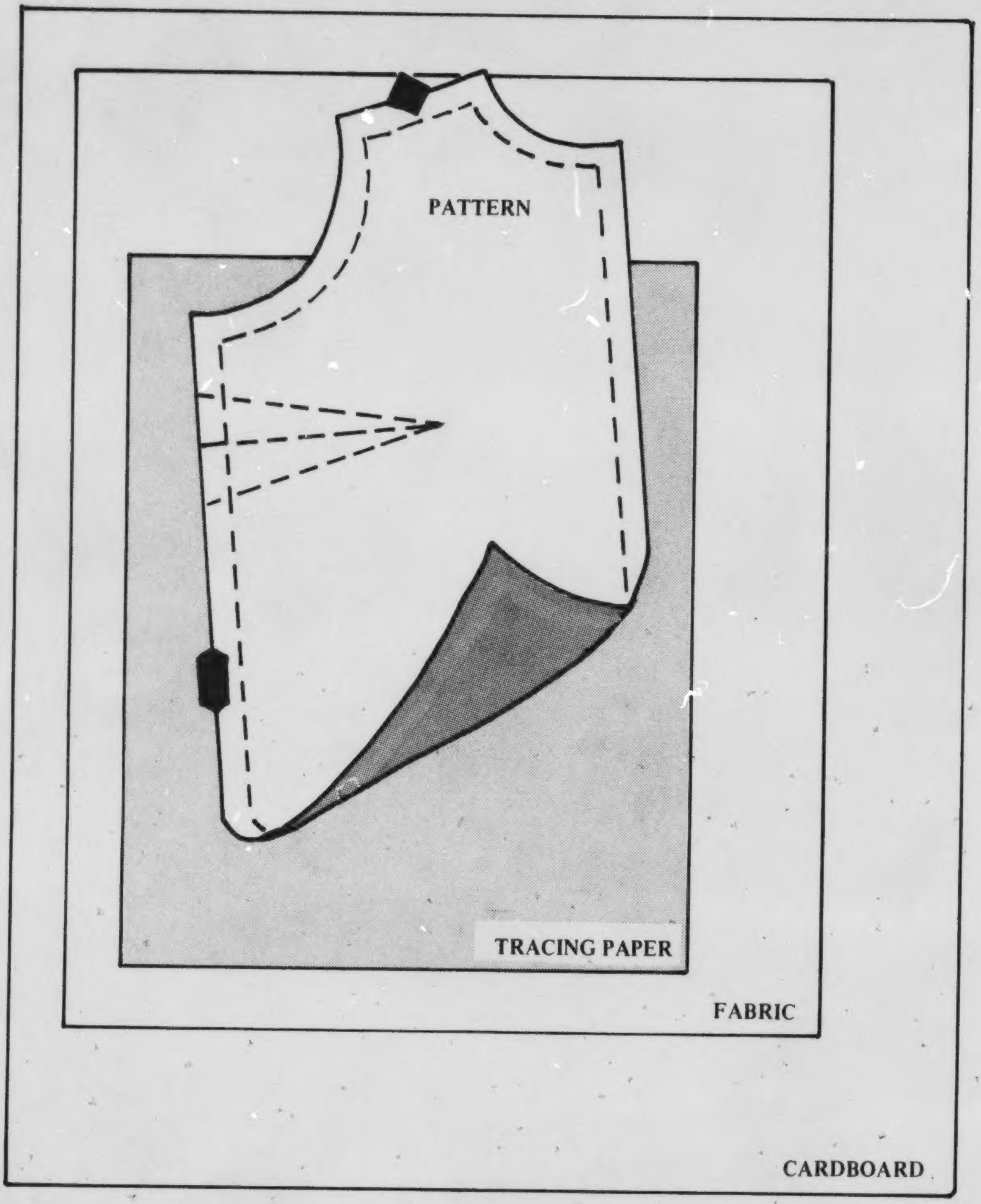
1. **SKIRT MARKER**					
2. **TRACING PAPER**					
3. **HEM GAUGE**					
4. **TRACING WHEEL**					
5. **TAILOR'S CHALK**					
6. **MARKING CHALK**					

TOOLS



MARKING

WHERE SHOULD THE TRACING PAPER GO?
(Transparency)



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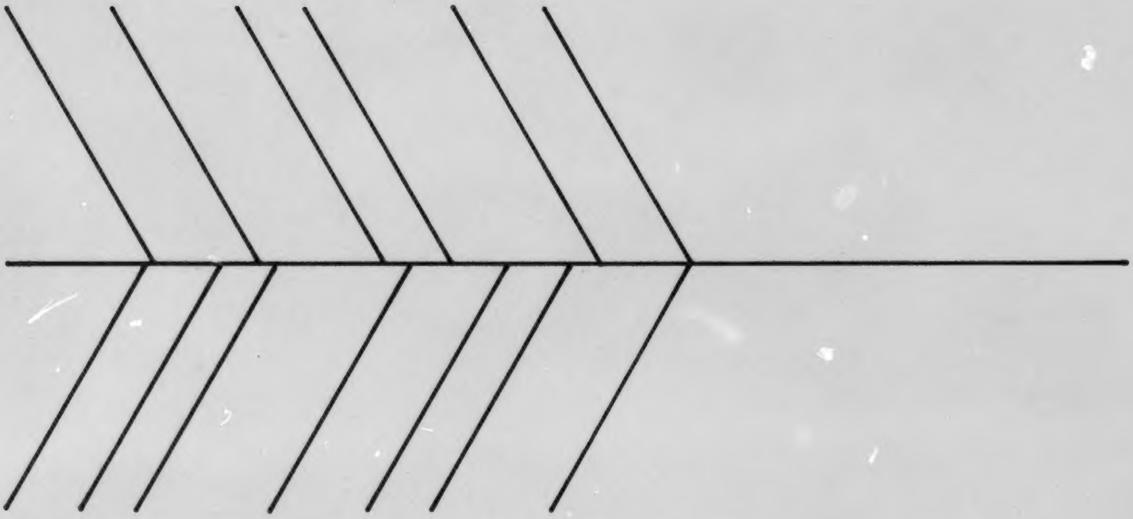
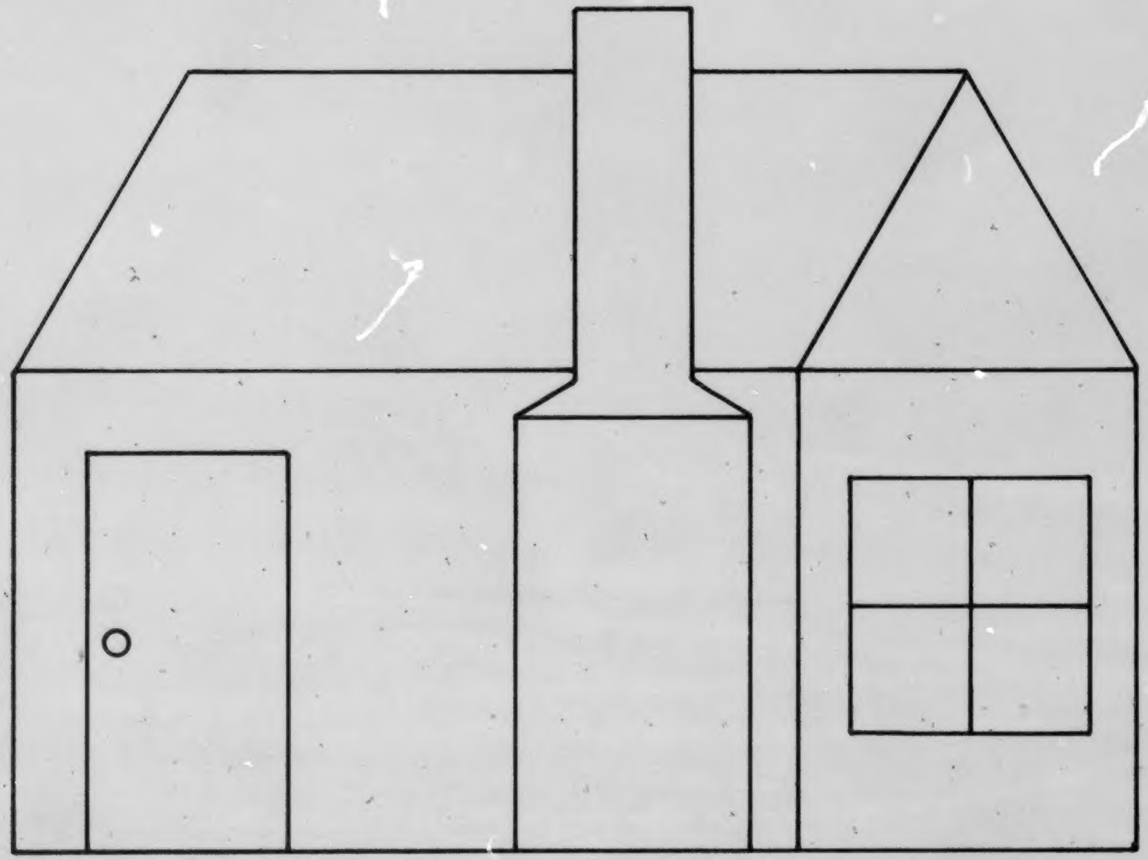
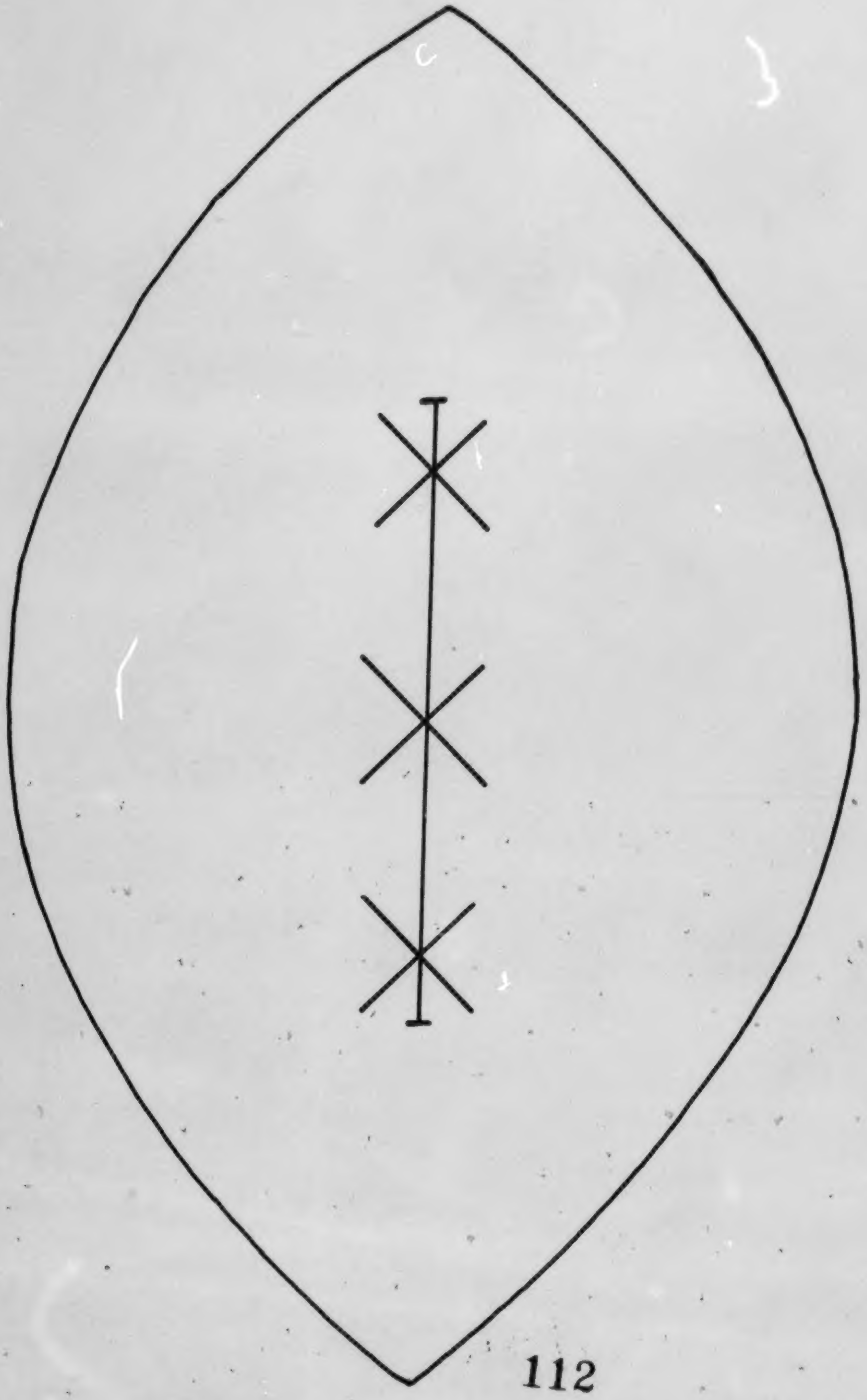
PATTERNS TO TRACE
(Activity)



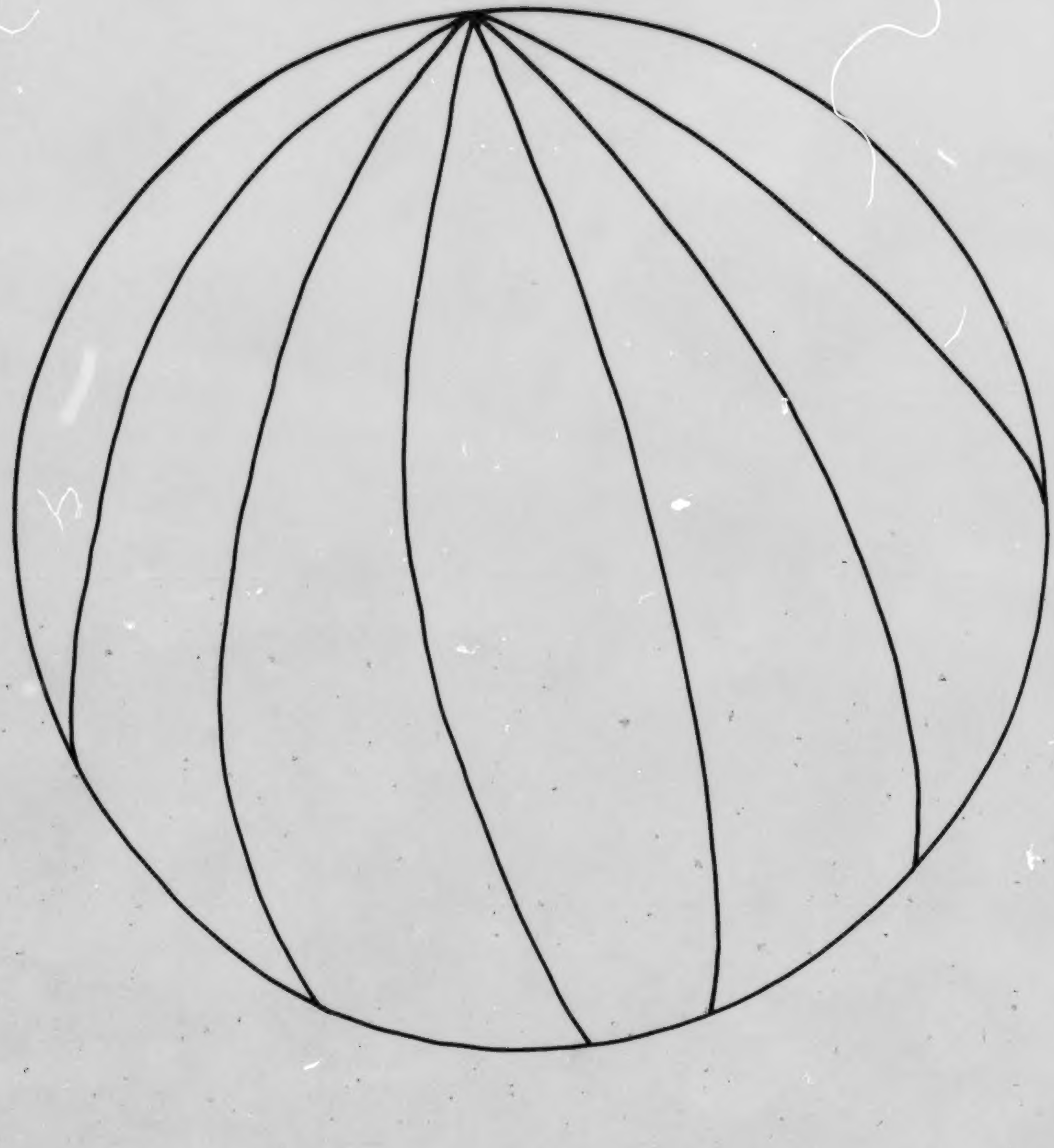


FOOTBALL PATTERN

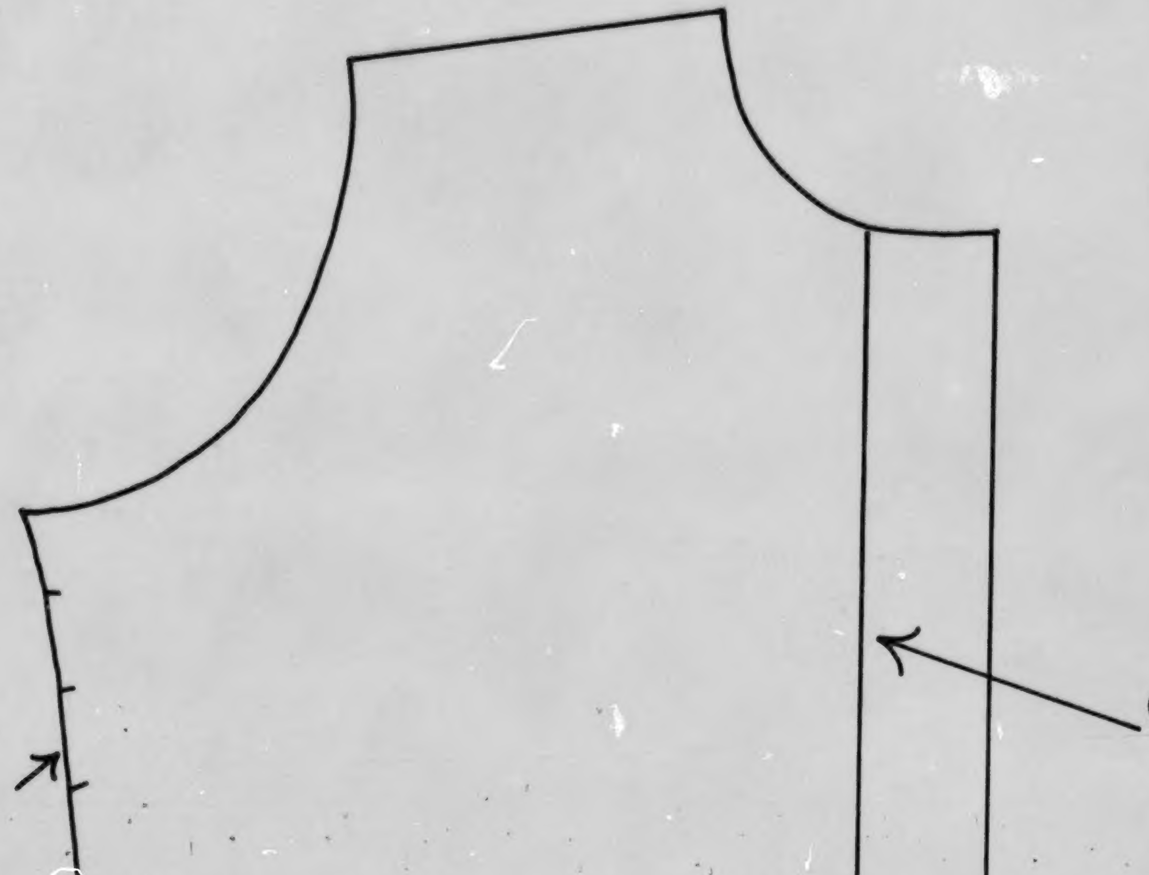


112

BASKETBALL PATTERN



MARKING A BODICE PATTERN



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SEWING TOOLS AND EQUIPMENT

Domestic Sewing Machines

COMPETENCY: Ability to effectively use and care for sewing machines.

SUB-COMPETENCIES: Ability to set up the domestic sewing machine.

Ability to identify the parts of the domestic sewing machine.

Ability to care for the domestic sewing machine.

WORDS TO KNOW:

- domestic sewing machine
- machine head
- machine base
- cabinet
- hand wheel
- stop motion control
- needle
- foot control
- knee control
- presser foot
- presser foot lifter
- bobbin
- bobbin case
- bobbin winder
- feed dog
- bobbin cover
- sewing machine light
- thread guides
- thread take-up lever
- spool pin or thread holder
- lint
- oil
- stitch length regulator
- stitch width regulator
- pattern selector
- built-in buttonholer
- buttonhole attachment
- zipper foot

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Observe a domestic sewing machine (P-P)	Look at pictures of domestic sewing machines as they are passed around. Find a domestic sewing machine in the clothing service laboratory and examine it.
Identify the steps in setting up a domestic sewing machine (C-K)	View slides demonstrating each step used in setting up a domestic sewing machine. [NOTE TO TEACHER: Make slides of a student illustrating each step taken. Example: Step 1–Raise the lid on the cabinet and gently put it down. (Slide would depict the lid being raised.) Watch as your teacher shows how to set up a domestic sewing machine in the clothing service laboratory. Repeat each step out loud as the teacher demonstrates it.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
List the steps to take when setting up the domestic sewing machine (C-K)	Form a circle and take turns giving each step in setting up the domestic sewing machine. Go around the circle 3 times. View transparencies on how to set up the domestic sewing machine. Each person in the transparency is setting up the domestic sewing machine. State what the person is doing in each picture. (See pp. 114-119.) Arrange the pictures in the correct order for setting up the domestic sewing machine. (See p. 120.)
Describe how to set up the domestic sewing machine (C-K)	As you watch the slides of the procedure for setting up a sewing machine, explain what is being done in each slide. Why is it necessary to lay the lid down gently when setting up the domestic sewing machine? What would happen if you suddenly let go of the machine head? [NOTE TO TEACHER: The slides used at the beginning of this lesson may also be used for this activity.] Fill in the blank to describe how the domestic sewing machine should be set up as the teacher reads the following story: Hardy wants to sew on the domestic sewing machine in the clothing service laboratory but the machine has been put away so that it would not get dusty. What will Hardy need to do? First he raises the *(machine lid)* and then he gently *(lowers)* it. This makes a nice smooth surface to sew on. Next, he raises the *(machine head).* While holding the machine head with one hand, Hardy lays down the *(front piece)* of the machine cabinet so the machine won't fall back down when he lets go. Then Hardy lowers the *(machine head).* The last thing that Hardy does is plug the *(cord)* into the wall outlet. Finally, Hardy is ready to sew!
Practice setting up the domestic sewing machine (P-GR)	Work in teams of two. Take turns setting up the domestic sewing machine. Ask for your teacher's help if you cannot remember all the steps. [NOTE TO TEACHER: If possible leave the machines set up for students with limited hand or arm use. Be sure to cover the machine head with a plastic or fabric cover to keep out dust.]
Perform the steps in setting up the domestic sewing machine (P-M)	Set the domestic sewing machine up before beginning to sew.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Identify the basic parts of a domestic sewing machine (C-K)	View a transparency of a domestic sewing machine as your teacher points out the parts of the machine. (See p. 121.) Repeat the name of each part as your teacher says it. [NOTE TO TEACHER: Depending upon the capabilities of the students, it may be best for some students to learn to place a thread around a tension disk spring without knowing the name of it.]
	Watch as your teacher points out the parts of the domestic sewing machine in the clothing service laboratory. Repeat the name of each part as your teacher points it out. Notice what each part does.
	Look at a handout with a picture of a domestic sewing machine on it and identify the parts that have arrows pointing to them. (See p. 121.)
Describe the parts of the domestic sewing machine (C-C)	Describe each part of the domestic sewing machine as the teacher holds up a picture of the part. Where does the part go on the domestic sewing machine? (See pp. 122-126.)
	Illustrate the location of each part by placing flannel shapes of the parts on a flannel machine. (See p. 127.) Name each part as you place it on the flannel board. Describe what each part does as you place it on the flannel board. [NOTE TO TEACHER: You may need to adapt the parts to fit the machines in your classroom.]
Identify the function of each part of a domestic sewing machine (C-K)	Listen as your teacher points to the parts of the domestic sewing machine in the clothing service laboratory and explains what each part does.
	As your teacher points to a part on the domestic sewing machine, tell the class what that part does.
Explain the function of each part on a domestic sewing machine (C-C)	Participate in "Machine Bee." [NOTE TO TEACHER: Divide the class into two groups to form teams. Each team will alternate in explaining what each machine part does as the teacher calls out its name. When a question is missed, the team member is "out." Members who are out have the chance to get back into the contest by giving the correct answer. The team to have members standing in the longest or the most standing at the end of a time limit is the winner.]
Name common attachments to the sewing machine (C-K)	Look at the buttonhole attachment or built-in buttonholer and the zipper foot as your teacher shows them to you. Practice identifying these common sewing machine attachments.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Identify reasons for caring for a domestic sewing machine (C-K)	Listen as your teacher explains why it is necessary to care for a domestic sewing machine. What might happen if you did not take care of the domestic sewing machine?
State how to remove lint from the domestic sewing machine (C-K)	Look at lint which has accumulated on a domestic sewing machine in the clothing service laboratory. Watch as your teacher removes lint from the sewing machine. Did your teacher unplug the sewing machine before starting to clean it? What kind of brush did your teacher use? Why was the lint removed?
Explain how to remove lint from a domestic sewing machine (C-C)	Describe to the class how to remove lint from the domestic sewing machine. Where does the lint come from? How often should you check the machine for lint?
Attempt to remove lint from a domestic sewing machine (P-GR)	Practice removing lint from a domestic sewing machine. Remember to unplug the sewing machine before you clean it. Ask for assistance from your teacher if you have dificulty.
	Demonstrate removing lint from a domestic sewing machine to a classmate. Ask classmate to note any errors made when you are removing the lint.
Perform the task of removing lint from a domestic sewing machine (P-M)	Remove lint from the domesic sewing machine before you begin stitching.
State how to oil the domestic sewing machine (C-K)	Watch as your teacher points out on a drawing of the domestic sewing machine the points to be oiled.
	Match the parts to be oiled shown on an oiling chart for the domestic sewing machine to the parts on the domestic sewing machine in the clothing service laboratory. Point them out to your teacher. [NOTE TO TEACHER: A red dot made of felt or paint could be placed on parts of the sewing machine to be oiled to aid the visually handicapped in identifying these areas.]
	Identify the location of parts to be oiled on the domestic sewing machine. Show them to another classmate.
	Say how often the domestic sewing machine should be oiled. If you oiled the machine today, when should it be oiled again?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Explain where a domestic sewing machine should be oiled (C-C)	Illustrate the location of the parts to be oiled by showing them to a classmate. Use the sewing machine manual or chart provided by your teacher as a guide. Point out the location of the parts to be oiled on the domestic sewing machine to your teacher.
State how to oil the domestic sewing machine (C-K)	Watch as your teacher shows you how to oil the domestic sewing machine. Why should you clean the lint from your machine before oiling it? What kind of oil did your teacher use? What did your teacher do about any oil drips? Why is it important to wipe away excess oil? How often should you oil the sewing machine? Take turns telling your classmates how to oil the domestic sewing machine.
Practice oiling the domestic sewing machine (P-GR)	Oil the domestic sewing machine in the clothing service laboratory using the handout as a guide. [NOTE TO TEACHER: For the handout, copy the oiling chart in the sewing machine manual. Make a copy for each student. An oiling chart could be blown up to poster board size so that it could be permanently displayed to aid students in performing the task. The oiling chart from the manual may need to be enlarged for students with limited eyesight.]
Perform the task of oiling the domestic sewing machine (P-M)	Oil the sewing machine whenever necessary. Generally the machine will only need to be oiled once a month. But if you use it often, oil it once a week. [NOTE TO TEACHER: Perhaps a schedule could be set up so that students oiled the machine on a set day. Example: Oil all machines every Friday.]
Perform steps to correctly care for the domestic sewing machine (P-M)	Before using the domestic sewing machine, perform the procedures necessary to properly care for the domestic sewing machine.

WORDS TO KNOW

About the Domestic Sewing Machine

(Teacher Information Sheet)

domestic sewing machine - a machine used for home sewing.

machine head - the part of the sewing machine above the cabinet.

machine base - the lower part of the sewing machine.

cabinet - a case or table for holding the sewing machine.

hand wheel - a round wheel on the right side of the sewing machine that moves the needle up and down. It can be turned by hand to place the needle in the right place to start stitching.

stop motion control - the knob that is turned to stop the needle and feed dog from moving while the bobbin is being filled. Some machines do *not* have a stop motion control.

needle - a thin piece of metal with a sharp pointed end that carries the thread through the fabric to make a stitch.

foot control - a square box on the floor that is pressed with the foot to make the machine go.

knee control - a long metal lever that extends from the cabinet below the machine head. It is pressed with the knee to make the machine go.

presser foot - the part below the needle that holds the fabric in place while it is stitched.

presser foot lifter -the lever that raises and lowers the presser foot.

bobbin - a small, round spool that holds the lower thread. It is placed in the lower part of the machine under the feed dog.

bobbin case - a holder for the bobbin in some machines.

bobbin winder - a small spindle that holds the bobbin while it is filled with thread.

feed dog - tiny teeth that move the fabric for each stitch. It controls the length of the stitch.

bobbin cover - a moveable piece of metal that covers the bobbin.

sewing machine light - a light used to make the sewing area brighter. A good light makes it easier to see the stitches and the fabric.

thread guides - the parts of the machine where the thread goes.

thread take-up lever - the lever that moves the thread up at the beginning of each stitch.

spool pin or thread holder - the part that holds the spool of thread. It is about two inches tall and is usually on top of the machine.

lint - fuzz made of fine fabric raveling and threads which build up on parts of the sewing machine. It must be brushed off to keep the sewing machine working well.

oil - a special liquid placed on certain parts of the sewing machine to keep the machine running smoothly.

stitch length regulator - the device that controls the length of the stitch. It controls the number of stitches per inch.

stitch width regulator - the device that controls the width of the zigzag stitch.

pattern selector - the dial or lever moved to set the machine at the decorative stitch wanted.

built-in buttonholer - the controls used to get the machine to make buttonholes.

buttonhole attachment - a device used on some machines to make buttonholes.

zipper foot - a special presser foot used for stitching close to zipper teeth.

SETTING UP THE DOMESTIC SEWING MACHINE
(Transparencies)

WHAT IS EACH PERSON DOING?

Transparency No. 1 – Raising the lid on the cabinet.

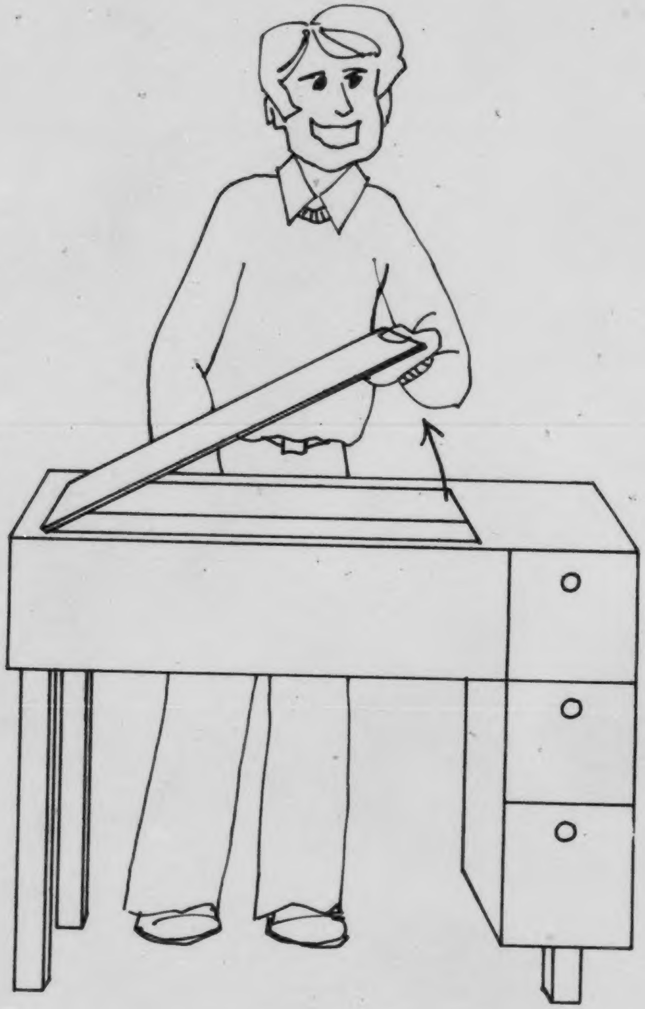
Transparency No. 2 – Lowering the lid gently.

Transparency No. 3 – Raising the machine head.

Transparency No. 4 – Lowering the front piece.

Transparency No. 5 – Lowering the machine head on top of the front piece.

TRANSPARENCY NO. 1



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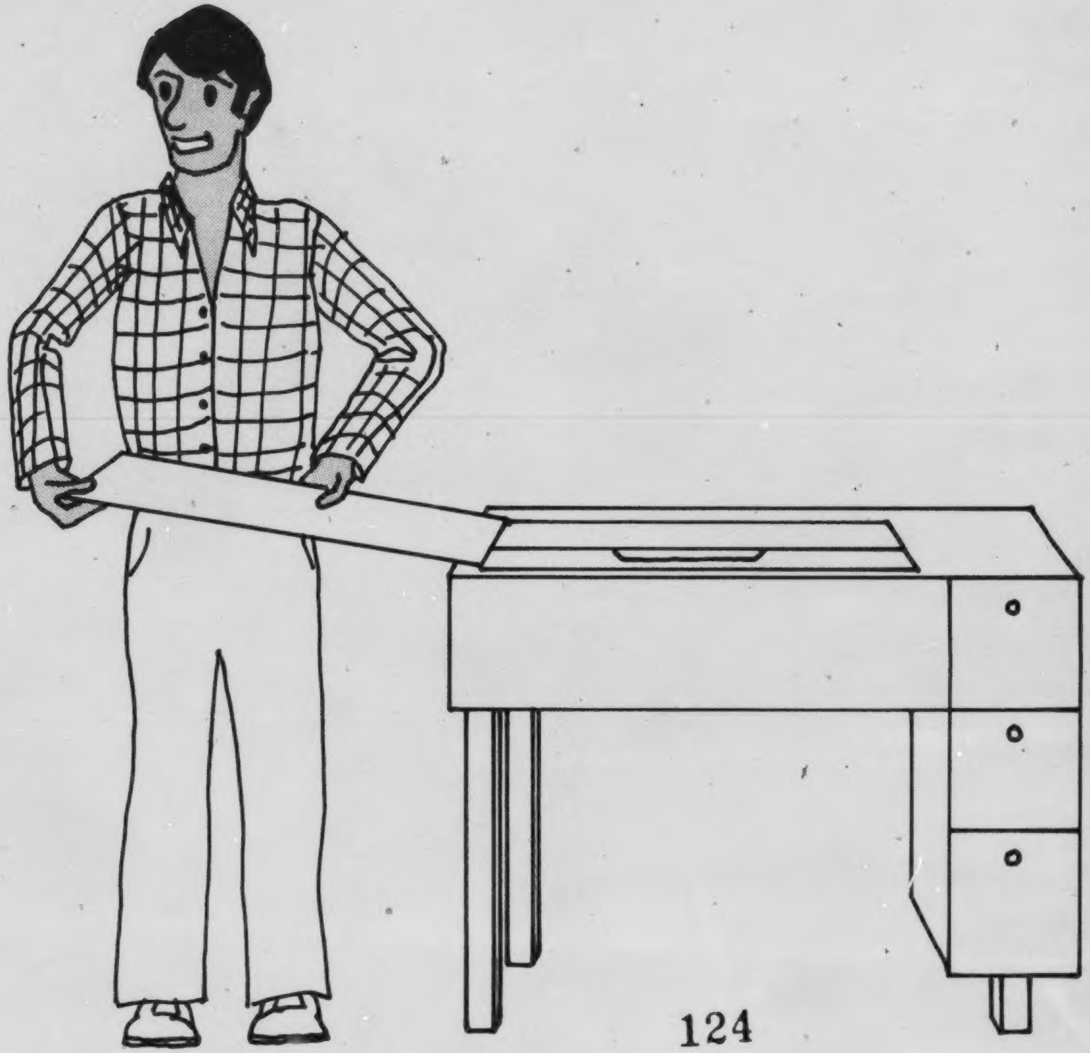
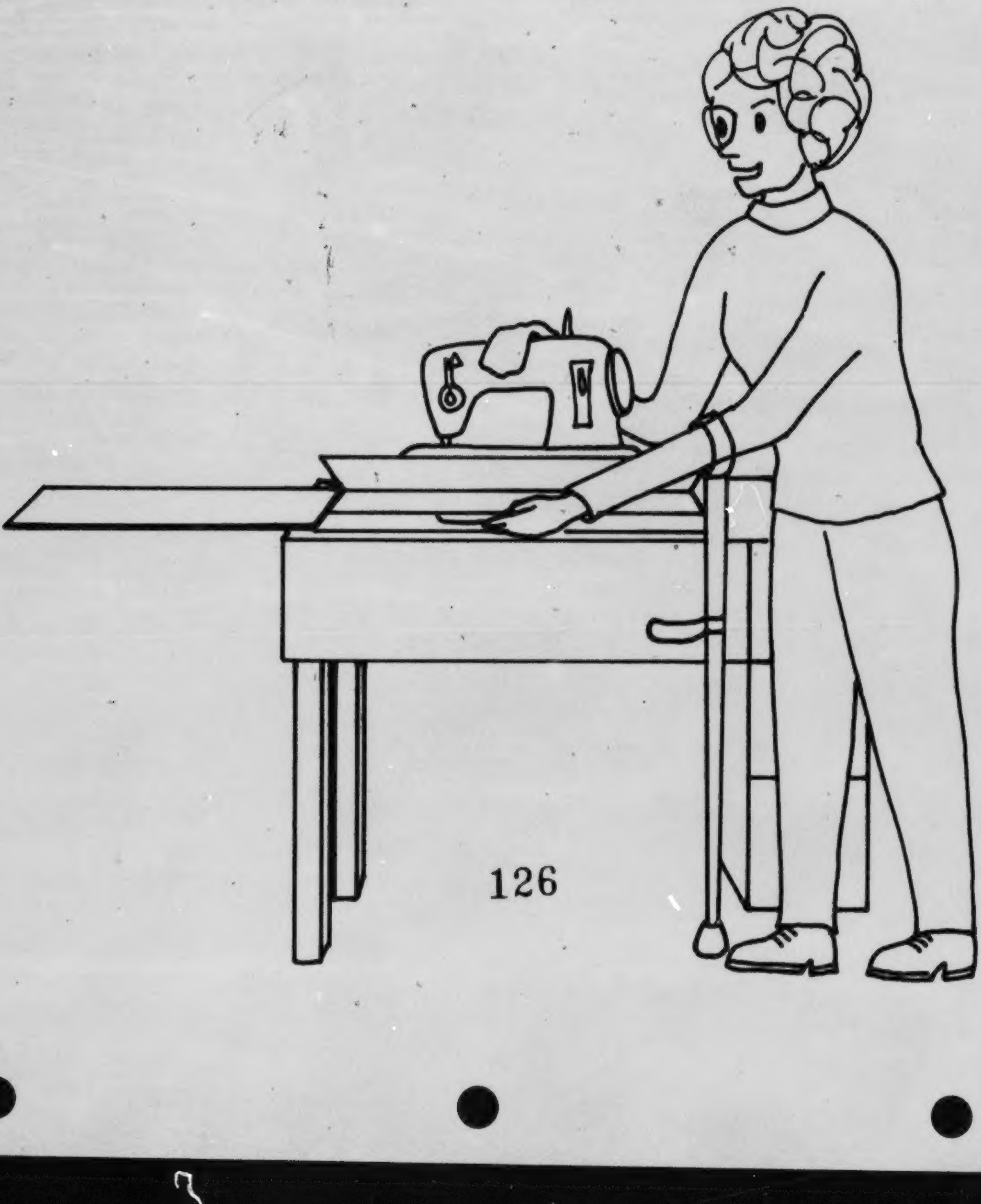


TRANSPARENCY NO. 3

TRANSPARENCY NO. 4



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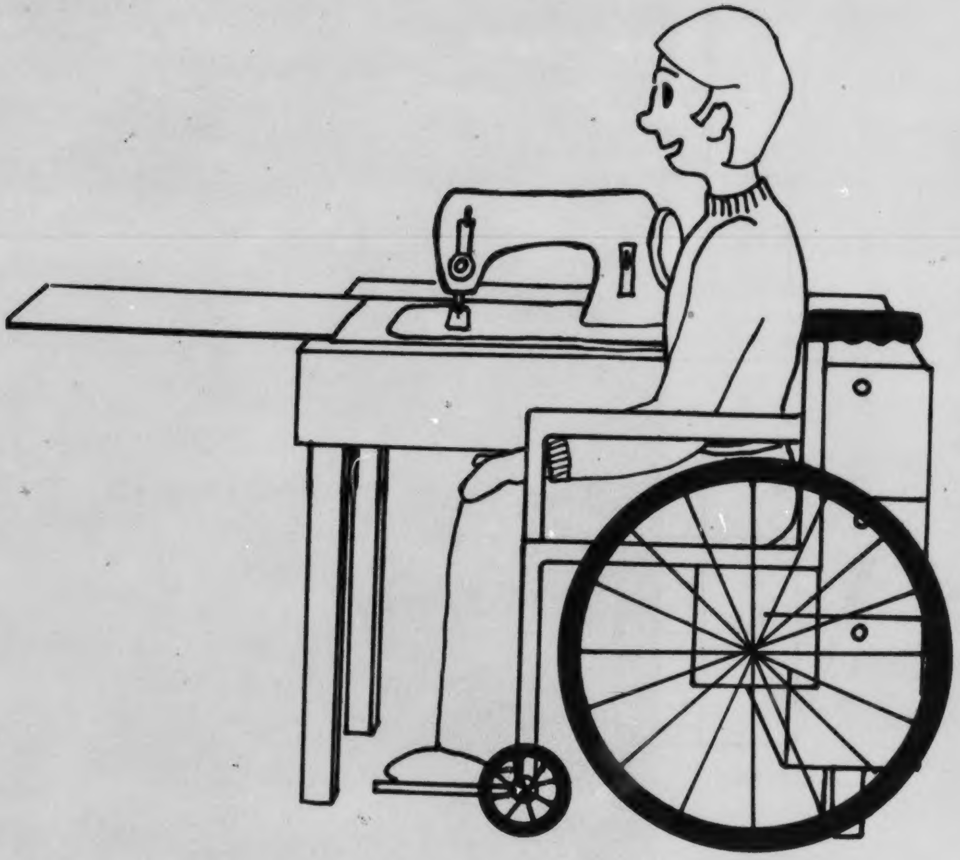
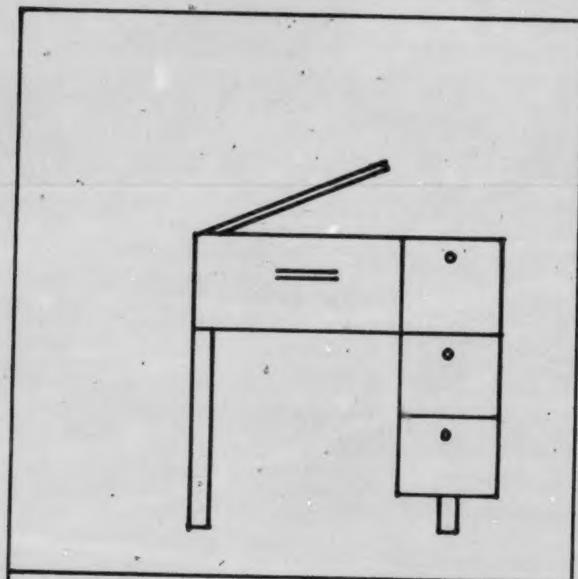
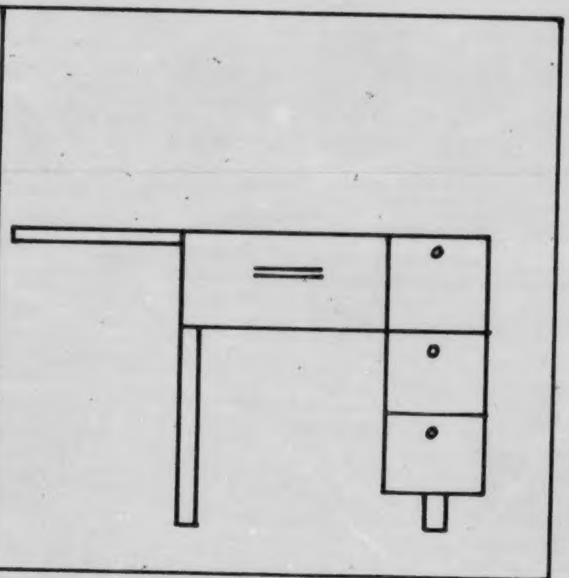
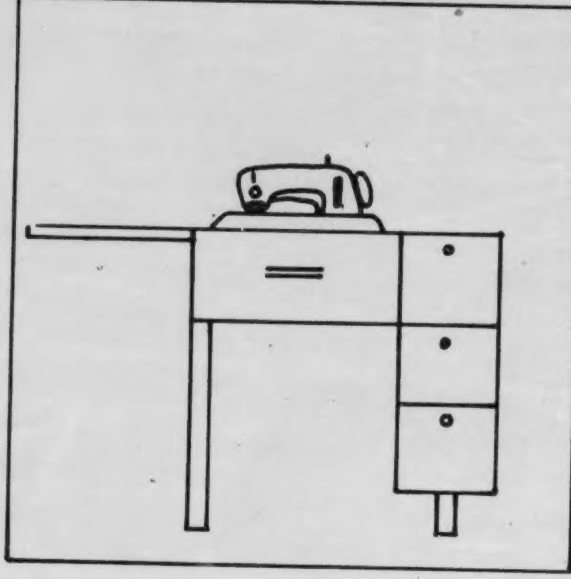


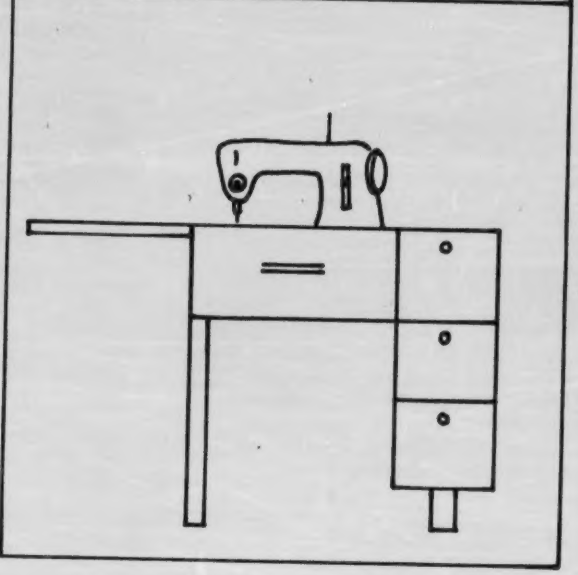
SETTING UP THE DOMESTIC SEWING MACHINE

DIRECTIONS: Cut the pictures apart. Paste them on cards. Practice arranging the cards in the correct order for setting up the domestic sewing machine.

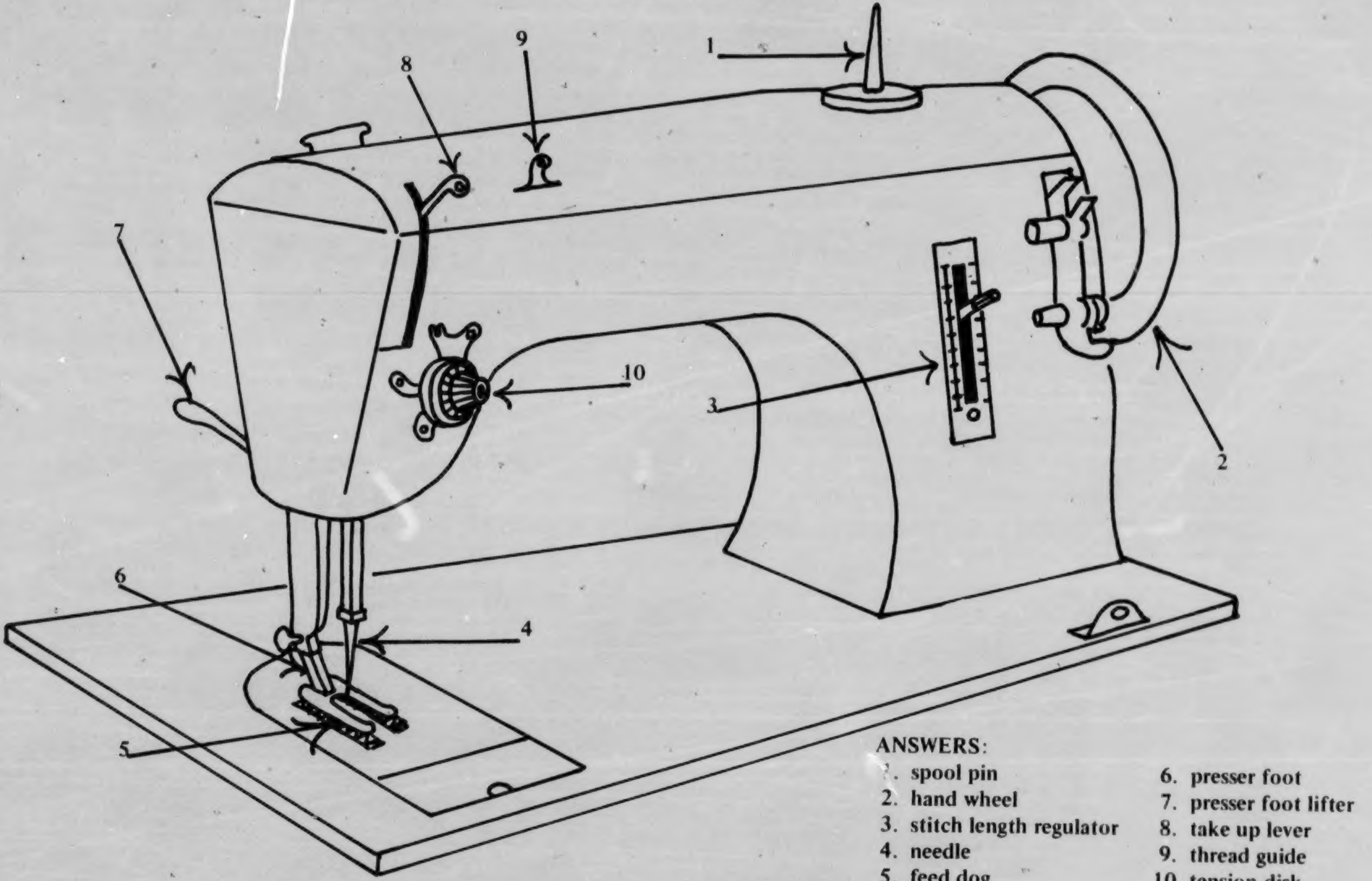








CAN YOU NAME THESE PARTS?
(Transparency and Handout)

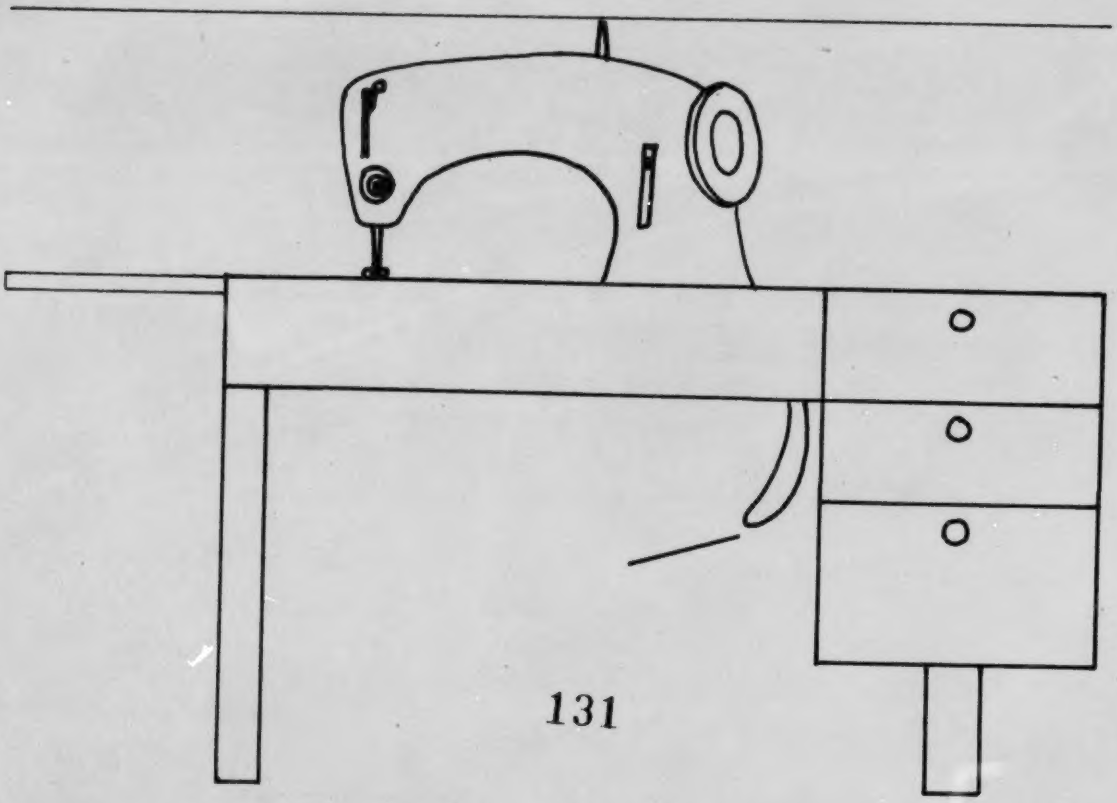


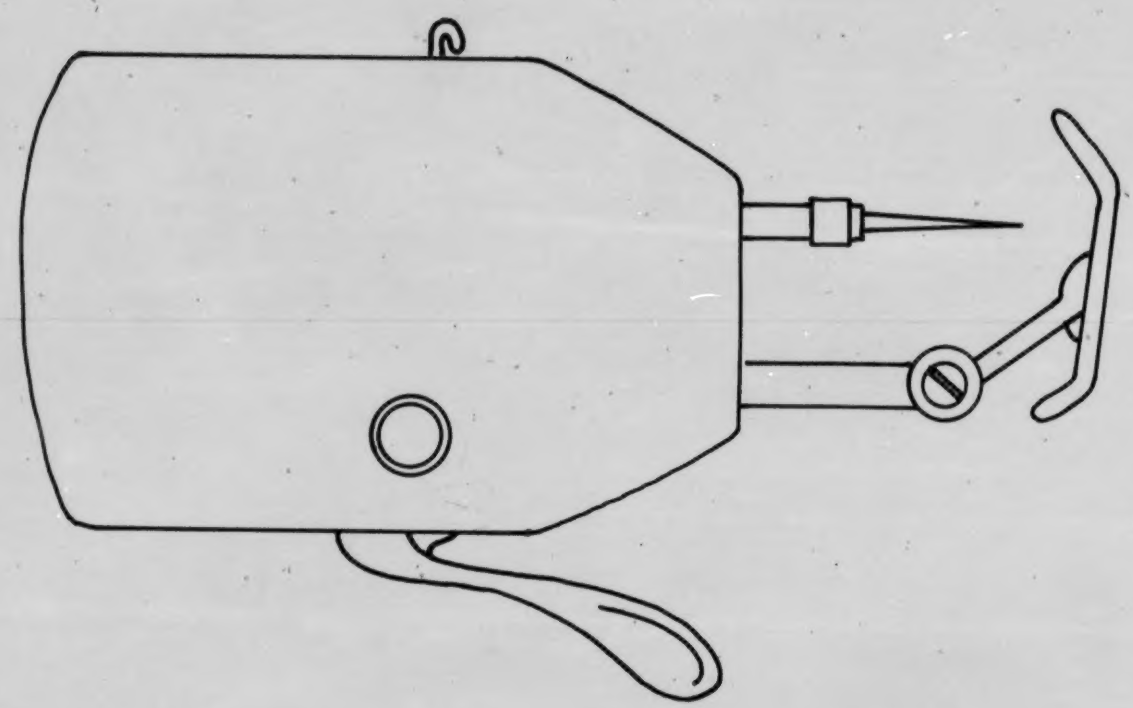
ANSWERS:

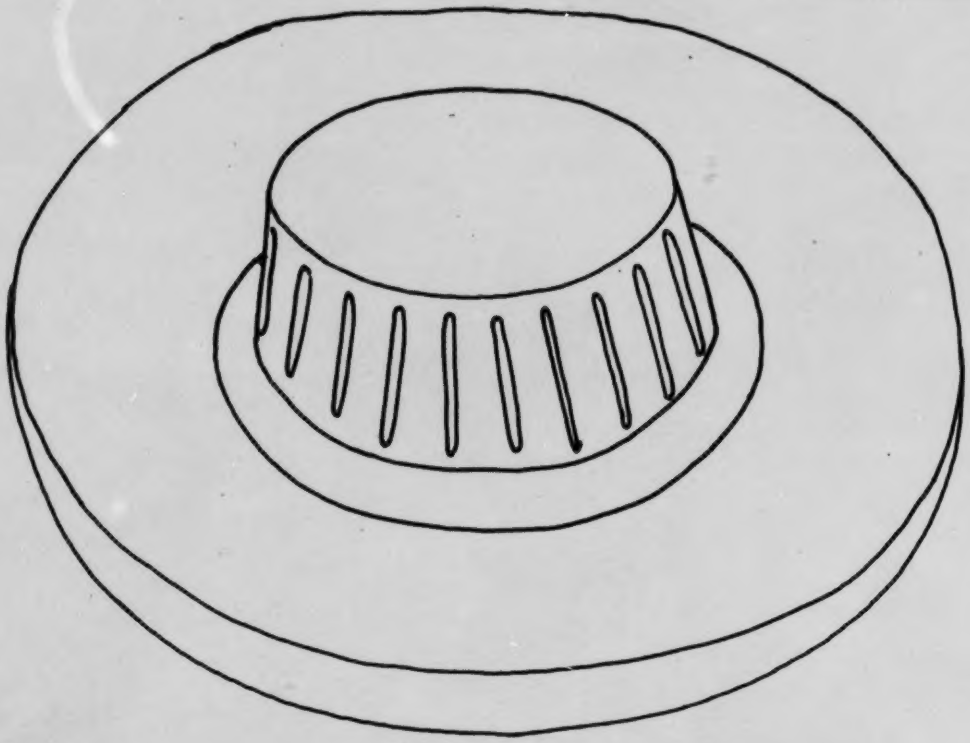
1. spool pin
2. hand wheel
3. stitch length regulator
4. needle
5. feed dog
6. presser foot
7. presser foot lifter
8. take up lever
9. thread guide
10. tension disk

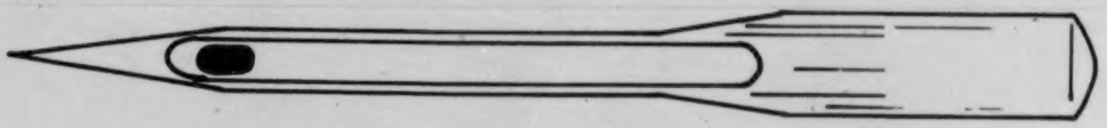
WHAT AM I?
(Flashcards)

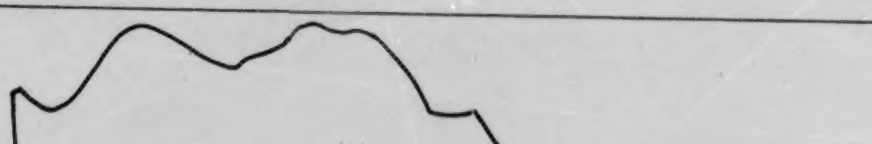
DIRECTIONS: Cut each flashcard apart and mount on cardboard or posterboard. Place a thin line of glue around the edges of each part so the line can be felt and recognized by blind or visually impaired students.











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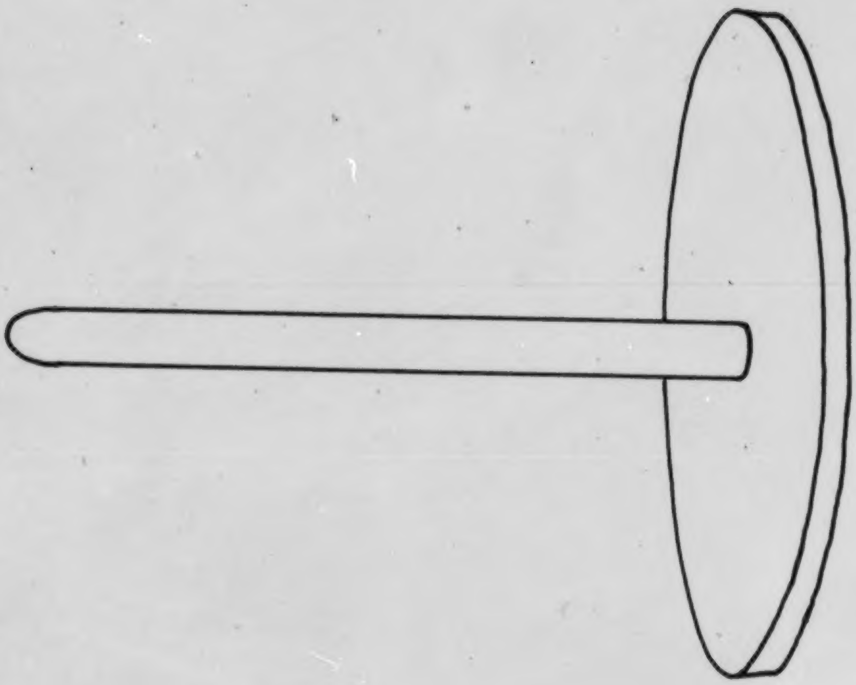

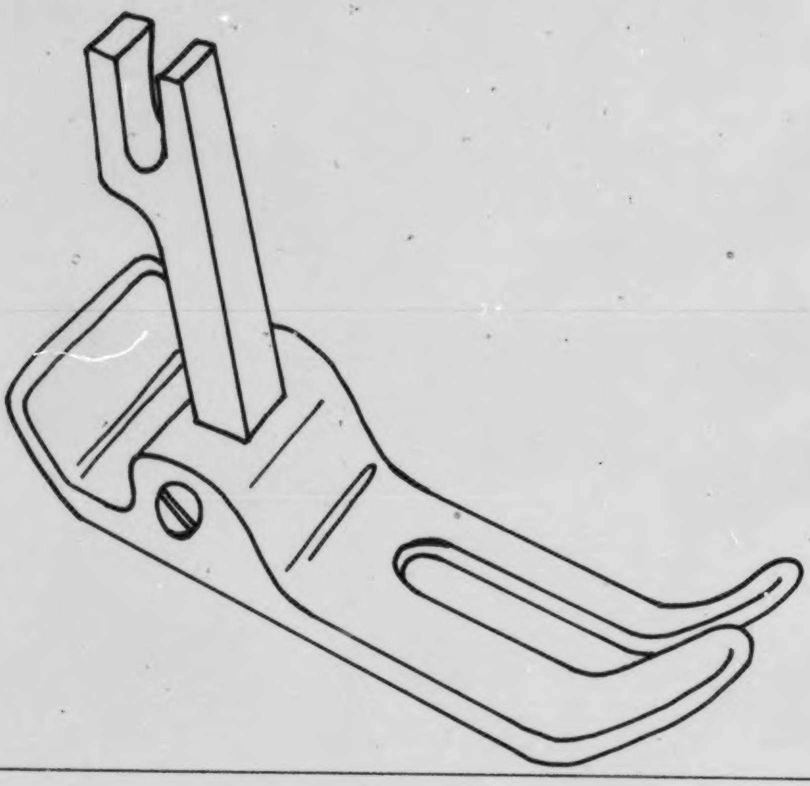

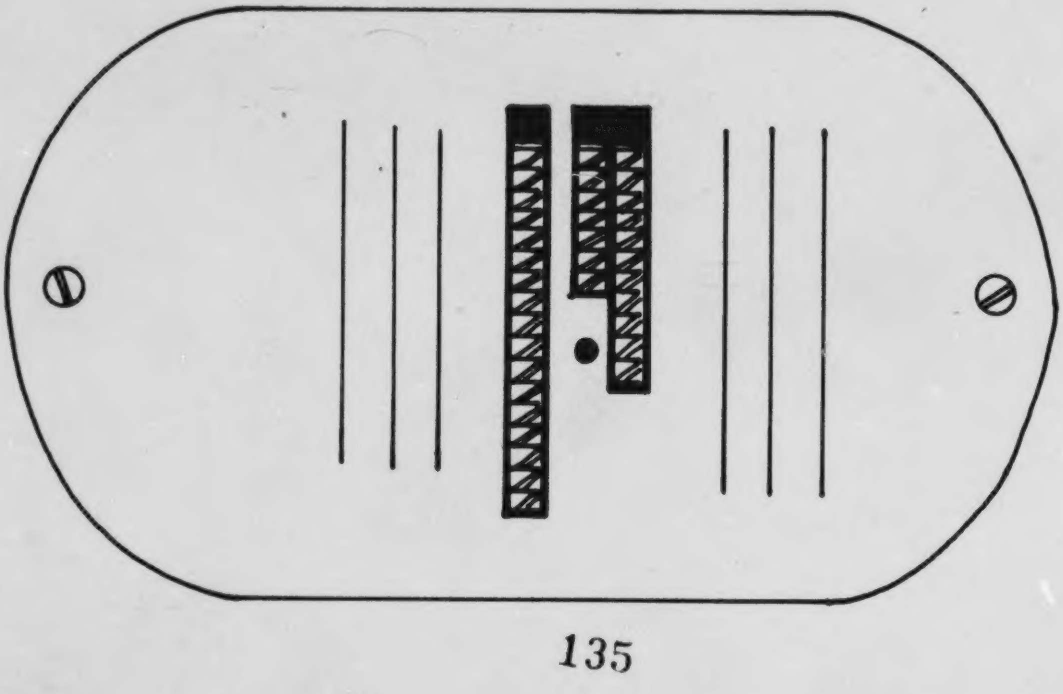

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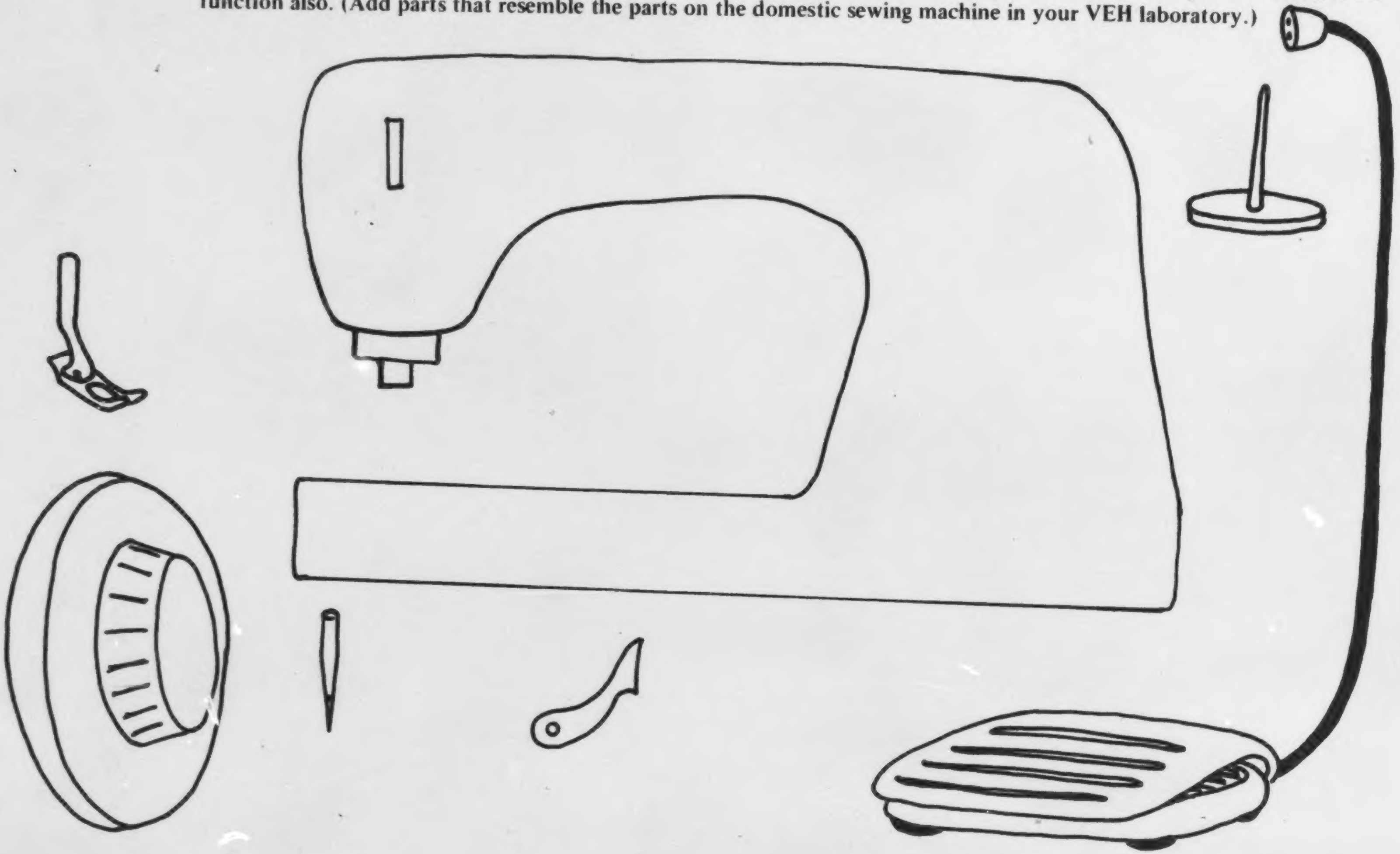
PARTS OF THE DOMESTIC SEWING MACHINE

(Flannel Board)

DIRECTIONS: Make a sewing machine head of flannel. Draw parts on posterboard. Glue flannel on the back of each part. The student has to say the name of the part before placing it on the correct location on the flannel machine. They could describe the function also. (Add parts that resemble the parts on the domestic sewing machine in your VEH laboratory.)



SEWING TOOLS AND EQUIPMENT

Commercial Sewing Machines

COMPETENCY: Ability to effectively use and care for sewing machines.

SUB-COMPETENCIES: Ability to identify the different types of commercial sewing machines.

Ability to recognize the stitch each commercial sewing machine makes.

Ability to clean and oil commercial sewing machines.

Ability to follow safe procedures when using commercial sewing machines.

WORDS TO KNOW:

lockstitch machine
blindstitch machine
(overedger) serger
machine head
machine table
motor
switch
thread stand
knee lift
electrical plug
foot treadle
sewing machine oil
oil can
oil gauge
reservoir
looper
ridge

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Identify commercial sewing machines (C-K)	Go on a "tour" of the clothing service laboratory. Listen as the "tour guide" (teacher) identifies the different types of commercial sewing machines. [NOTE TO TEACHER: Example of "tour information": "And over here ladies and gentleman you will see a serger! Notice the four spools of thread."] Repeat the name of each commercial sewing machine as your teacher points to it. [NOTE TO TEACHER: The overedger will be referred to as the serger.] View pictures of the blindstitch, the serger, and the lockstitch machines. [NOTE TO TEACHER: Training manuals have advertisements which picture the various types of machines.] As your teacher holds up a picture of each commercial sewing machine, find that machine in the clothing service laboratory. [NOTE TO TEACHER: After using the pictures of the commercial sewing machines, place them near the actual machines used in the VEH laboratory. Also, place the name of each machine and a sample of its stitching with each picture for students to use throughout the unit. (See pp. 134-136.)]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	As your teacher points to a commercial sewing machine, tell your class the name of the machine.
Note the differences between the domestic sewing machine and commercial sewing machines (C-K)	Listen as your teacher describes the differences between a domestic sewing machine and a commercial sewing machine. Which goes at a greater speed? Where are commercial sewing machines used?
	As your teacher points to a machine in the laboratory, tell whether it is a domestic sewing machine or a commercial sewing machine.
Identify the basic parts of the commercial sewing machine (C-K)	Watch as your teacher points out the basic parts of a commercial lockstitch machine. Repeat the name of each part as your teacher says it. [NOTE TO TEACHER: The basic parts of most commercial sewing machines are: machine table, machine head, motor, thread stand, switch, knee lift, light, thread cone, electrical cord, needle, and foot treadle.]
	View the poster illustrating the commercial lockstitch machine. As your teacher places an arrow on the poster state the name of the part aloud. (See p. 134.)
Observe the function of the basic parts of the lockstitch machine (P-P)	Watch as your teacher demonstrates what each part of the lockstitch machine does. [NOTE TO TEACHER: Demonstrate on an actual commercial lockstitch machine in the VEH laboratory.]
	View a puppet demonstration on what each part of the lockstitch machine does. [NOTE TO TEACHER: See p. 137 for script.]
Describe the function of the basic parts of the lockstitch machine (C-C)	Listen as your teacher names a part of the lockstitch machine. Show the class where the part is located and explain what it does. Does the lockstitch machine have a bobbin?
	Listen to a tape recording of "What Am I?" The tape will explain what each part does and you will state the name of the part it is describing. [NOTE TO TEACHER: See p. 138 for script to be recorded on tape.]
Cite procedures for cleaning the lockstitch machine (C-K)	Watch as your teacher shows you how to clean a lockstitch machine. When should the machine be cleaned? What tools are used for cleaning? [NOTE TO TEACHER: Emphasize the importance of turning off the motor while cleaning the machine.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Practice cleaning the lockstitch machine (P-GR)	Follow the steps for cleaning the lockstitch machine as your teacher shows you each one.
	Work in teams of two to demonstrate how to clean the lockstitch machine.
Observe procedures for oiling the lockstitch machine (P-P)	Watch as your teacher demonstrates how to oil the lockstitch machine. Why must the machine be oiled? What would happen if too much oil were added? [NOTE TO TEACHER: Some commercial sewing machines are self-oiling and it is not necessary to oil these machines manually. Procedures for oiling the lockstitch machine may be found in the machine manual.]
	Examine a lockstitch machine as your teacher points to the parts that should be oiled. How much oil should be added? Why should excess oil be wiped away? [NOTE TO TEACHER: Place arrows on the poster illustrating the lockstitch machine to designate the parts of the machine to be oiled. Students can refer to this as needed. Raised arrows made of heavy tape or felt designating machine parts to be oiled would be helpful for blind students.]
Explain how to oil the lockstitch machine (C-C)	In your own words describe the steps for oiling the lockstitch machine. Why must you never oil the motor?
Practice oiling the lockstitch machine (P-GR)	Follow the steps for oiling the lockstitch machine as your teacher shows you each step.
	Take turns showing the class how to oil the lockstitch machine.
Identify the basic parts of the commercial serger (C-K)	Watch as your teacher points out the main parts of the serger. Repeat the name of each part as your teacher says it. How are the parts similar to those on the lockstitch machine? How are they different?
	As your teacher points to a part of the serger, tell the class the name of that part.
Note the function of the basic parts of the serger (C-K)	Watch as your teacher shows you how each part of the serger works.
Explain the function of the basic parts of the serger (C-C)	Draw a number out of a box and find the same number on the serger. Tell the class the name of the part and describe what it does. [NOTE TO TEACHER: Label the parts of a serger with numbered circles cut from construction paper. The circles can be held onto the machine with a small amount of tape.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Note procedures for cleaning the serger (C-K)	Watch as your teacher shows you how to clean the serger. What tools are needed to clean the machine? How often should the machine be cleaned?
Practice cleaning the serger (P-GR)	Follow the steps for cleaning the serger as your teacher shows you each step. Take turns demonstrating how to clean the serger.
Observe how to oil the serger (P-P)	Watch as your teacher shows you how to oil the serger. How often should the machine be oiled? What is used to oil the machine? [NOTE TO TEACHER: If the commercial sewing machines have oil gauges, students need to be able to determine if the oil is at the proper level.] Examine the parts of the serger that need to be oiled as your teacher points to them on a drawing of the machine. Find these parts on the machine in the clothing service laboratory. [NOTE TO TEACHER: Place arrows on the illustration of the serger designating the parts of the machine to be oiled. The arrows should be raised and made of heavy tape or felt for blind students.]
Identify parts of the serger that should be oiled (C-K)	Take turns pointing out the parts of the serger that should be oiled.
Practice oiling the serger (P-GR)	Practice oiling the serger with your teacher's help. Take turns demonstrating how to oil the serger.
Note the basic parts of the blindstitch machine (C-K)	Watch as your teacher points out the basic parts of the blindstitch machine. Repeat the name of each part as your teacher says it. Point out the basic parts of the blindstitch machine as your teacher calls out the name of each.
Cite the function of the basic parts of the blindstitch machine (C-K)	Watch as your teacher shows you how each basic part of the blindstitch machine works.
Describe the function of the basic parts of the blindstitch machine (C-C)	In your own words describe how each main part of the blindstitch machine works. How are the parts similar to those on the other sewing machines?
Note procedures for cleaning the blindstitch machine (C-K)	Watch as your teacher shows you how to clean the blindstitch machine. What tools are used for cleaning? How often should the machine be cleaned?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Practice cleaning the blindstitch machine (P-GR)	Follow the steps for cleaning the blindstitch machine as your teacher shows you each step. Practice the steps for cleaning the blindstitch machine.
Note procedures for oiling the blindstitch machine (C-K)	Watch as your teacher shows you how to oil the blindstitch machine. How often should the machine be oiled? What is used to oil the machine? Examine the parts of the blindstitch machine that should be oiled as your teacher points to them. [NOTE TO TEACHER: Place arrows on the illustration of the blindstitch machine designating the parts of the machine that should be oiled. The arrows should be raised and made of heavy tape or felt for blind students.]
Practice oiling the blindstitch machine (P-GR)	Practice oiling the blindstitch machine as your teacher checks your work. Take turns demonstrating how to oil the blindstitch machine.
Perform the task of caring for the commercial sewing machines (P-M)	Clean and oil the commercial sewing machines in the clothing service laboratory as needed.
List general safety rules and regulations involved with commercial sewing machines (C-K)	Help your teacher prepare a list of safety tips to observe when using a commercial sewing machine. Why is it important to keep the work area clear at all times? Why should you pay attention to what you are doing and keep your eyes on your hands as you work? In what ways can the clothing you wear be safe or unsafe? Why is it important to pull long hair away from your face while sewing? Why should you turn the machine off when you are not using it? Why should you keep your fingers away from the needle as you sew? What should you do if you hit your finger with the sewing machine needle?
Explain why safety on the job is important (C-C)	In your own words tell why safety on the job is important.
Alter behaviors in terms of safety precautions to use with commercial sewing machines (A-V)	Participate in role play to show safety when using commercial sewing machines. Use safety tips from the list developed in class. Demonstrate sewing safety by following the rules for safety when using the commercial sewing machines.

WORDS TO KNOW
About Commercial Sewing Machines
(Teacher Information Sheet)

lockstitch machine - a sewing machine which makes a straight stitch. It looks like a domestic sewing machine but it is larger and heavier.

blindstitch machine - a sewing machine that makes a stitch that does not show on the right side.

serger (overedger) - a sewing machine which makes a stitch that covers the edge of the fabric. It is smaller than the lockstitch machine.

machine head - the part of the sewing machine that sticks up above the machine table.

machine table - the flat surface that looks like a table.

motor - the part that makes the machine go. It has to be turned on and off.

switch - the device that makes the machine go or stop. It is under the table and looks like a light switch.

thread stand - holder for thread cones. It is located behind the machine head.

knee lift - the part that lifts the presser foot and releases the thread tension. It is pushed with the knee.

electrical plug - the part on the end of the electrical cord that is plugged in to make the machine go. It has three metal prongs that fit into an electrical outlet.

foot treadle - the foot control which starts and stops the machine. It also regulates how fast or slow the machine goes.

sewing machine oil - oil that is used in a sewing machine.

oil can - a small can that holds oil. It has a small spout that sticks out from the can.

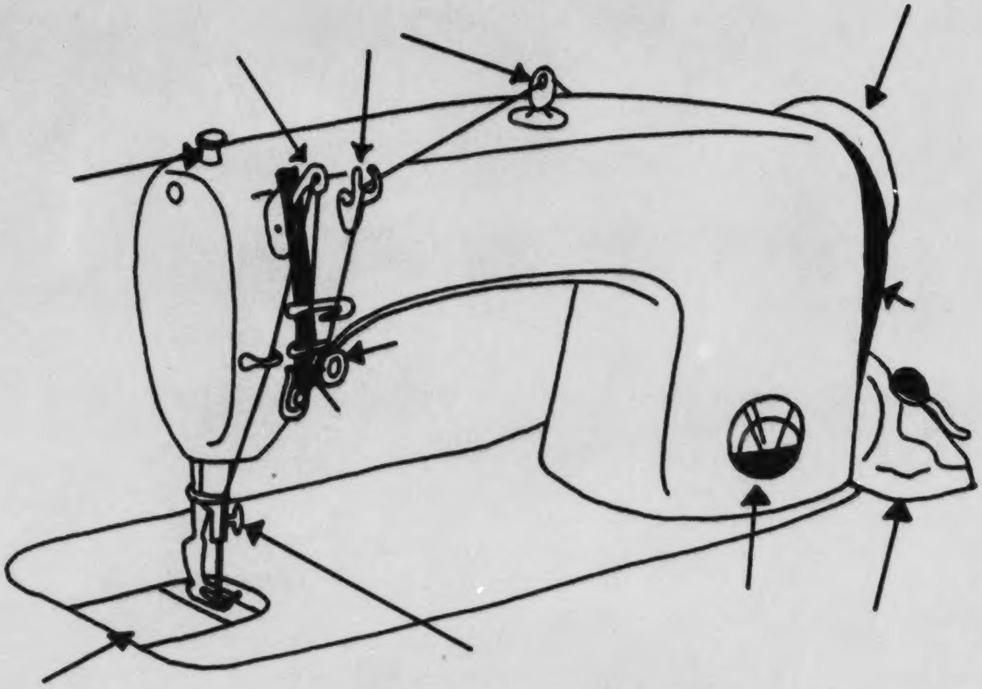
oil flow window or *oil gauge* - the part that shows how much oil is in the machine. It shows you when the machine needs oil.

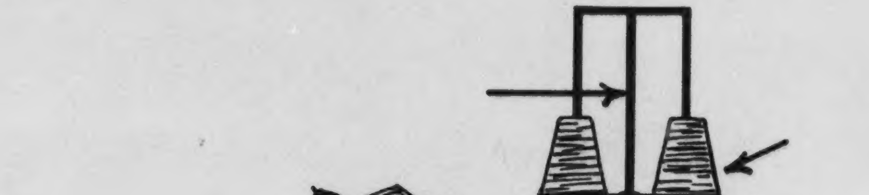
reservoir - place where oil is stored.

looper - a device which carries the lower thread on a chainstitch machine. The looper has an eye near the point which must be threaded. The looper is used instead of a bobbin.

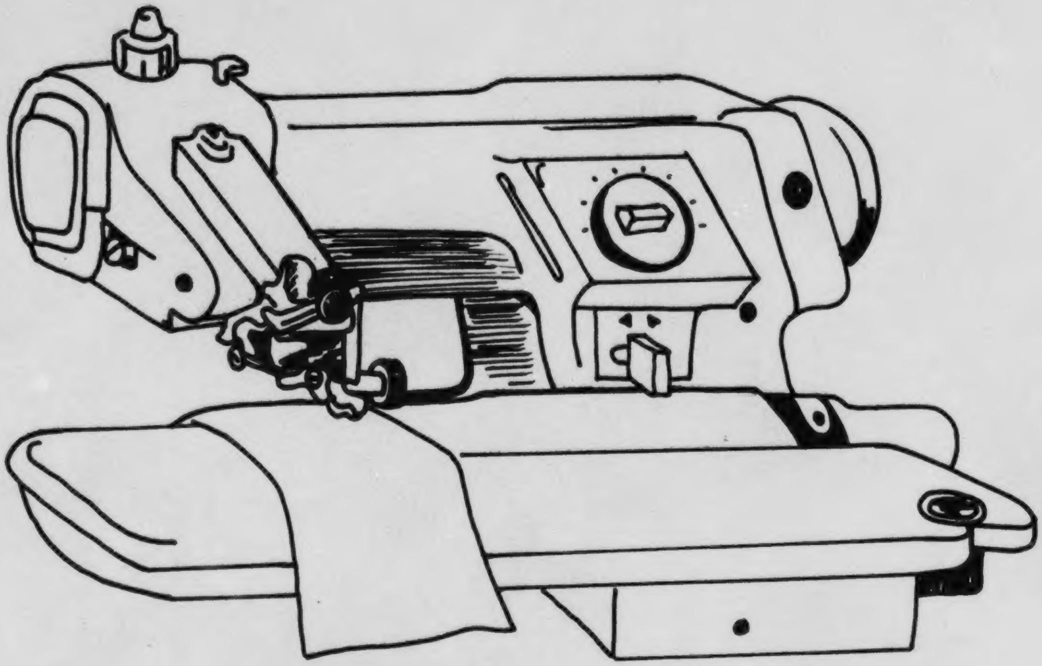
ridge - the curved part under the needle of the blindstitch machine. Work is "fed" over the ridge. The ridge controls how far the needle goes into the fabric. It must be adjusted to the thickness of the material.

LOCKSTITCH

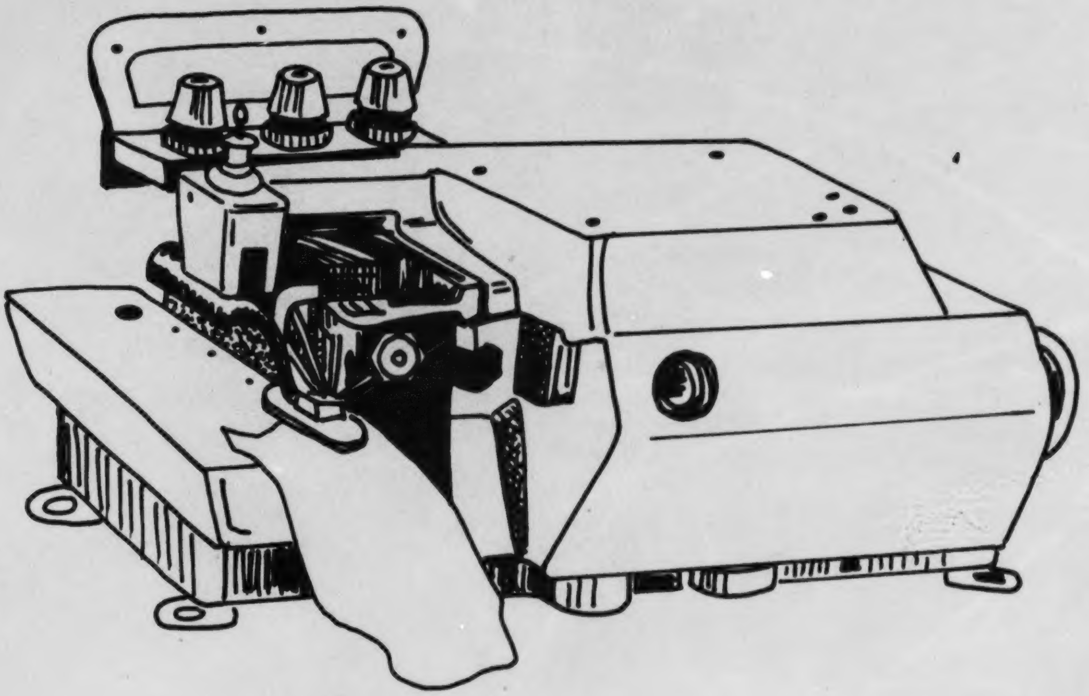




BLINDSTITCH



SERGER



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PUPPETS

PUPPET ONE: Look over here! This is a commercial lockstitch machine.

PUPPET TWO: Wow! How does it work?

PUPPET ONE: Well, this is the power switch. You turn it on and the motor comes on.

PUPPET TWO: Oh Boy! Let's turn it on now.

PUPPET ONE: No way. Not until we have learned all about the commercial lockstitch machine.

PUPPET TWO: O.K. What's next?

PUPPET ONE: This is the machine table. It holds up the machine.

PUPPET TWO: What's this?

PUPPET ONE: That is the thread stand. It holds the spools of thread.

PUPPET TWO: Look at this (the light). I think there is a light in there.

PUPPET ONE: You're right. This light will help us to see what we are sewing.

PUPPET TWO: If this machine has a light, it must have an engine!

PUPPET ONE: No, it doesn't have an engine but it does have a motor. The motor is right here. It is what makes this belt turn so that this sewing machine can sew.

PUPPET TWO: I see, but how do you make the needle move?

PUPPET ONE: Well, you mash down on this treadle with your foot to make the machine go. That is just what we will be doing as soon as we learn more about the commercial lockstitch machine.

PUPPET TWO: Good. I can't wait. Let's get started!

WHAT AM I?

1. You turn me on to make the machine motor start. What am I?

2. You press down on me to make the needle go up and down. What am I?

3. I hold the spools of thread. What am I?

4. I help you to see what you are sewing on. What am I?

5. I have the needle and dials on me. What am I?

SEWING TOOLS AND EQUIPMENT

Pressing Equipment

COMPETENCY: Ability to safely use and care for pressing equipment.

SUB-COMPETENCY: Ability to identify pressing equipment.

Ability to select appropriate pressing equipment for a task.

Ability to describe the safe use and care of irons.

Ability to describe the use and care of an apparel steamer.

WORDS TO KNOW:

iron
sole plate
temperature control
steam button
ironing board
apparel steamer
pressing buck
apparel steamer head
apparel steamer foot pedal
needle board
point presser
pounding block
press board
skirt board
sleeve board
tailor's ham
seam roll
press mitt
press cloth

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Examine equipment used in pressing (P-P)	Look at pressing equipment in the clothing service laboratory. Notice the different shapes and sizes of the equipment. Take turns handling the pressing equipment. [NOTE TO TEACHER: Place all the equipment out on a table so that they can be examined closely.]
Note the different types of pressing equipment (P-P)	Look at a flip chart with pictures and names of pressing equipment. [NOTE TO TEACHER: Group pressing equipment by type, such as irons, pressing surfaces, and pressing cushions.] Repeat the names of the equipment as your teacher points to it. Which piece of equipment are irons? Which pieces of equipment are pressing surfaces? [NOTE TO TEACHER: Use an opaque projector to enlarge pictures of sewing equipment for the flip chart.]
Identify the equipment used in pressing (C-K)	Work in teams to circle the picture of a piece of pressing equipment as your teacher holds up a picture of a type of pressing equipment. Raise your hand if you think you know its name. Each correct answer is worth two points and for each incorrect answer a point is taken away. The team with the most points at the end of the game wins. (See p. 147.)

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Match the name of the pressing equipment to its picture on the handout. (See p. 148.)
	Play Pressing Equipment Bingo. [NOTE TO TEACHER: Make Bingo cards with different pictures of pressing equipment on them. Call out the name of a piece of equipment. Have the students place a token on the picture if they have it. The first student to get three in a row either up and down, across, or diagonally wins. See p. 149.)]
Locate equipment used in pressing (P-S)	Use the handout with the pictures of the pressing equipment on it as a guide. Locate where each item is stored in the clothing service laboratory. (See p. 148.)
State the uses of a press cloth (C-K)	Listen as your teacher explains what a press cloth is. What is the press cloth made of? What is a press cloth used for? [NOTE TO TEACHER: Many alteration shops use a teflon plate that attaches to the bottom of the iron instead of using a press cloth.]
Describe a press cloth (C-K)	Take turns describing to the class what a press cloth is.
Identify procedures for caring for a press cloth (C-K)	Watch as your teacher demonstrates how to wash a press cloth. Why does a press cloth need to be washed? How often should a press cloth be washed? What would happen if you used a dirty press cloth?
Demonstrate how to care for a press cloth (C-C)	Divide into teams of two and show the class how to care for a press cloth. Why is it important to care for a press cloth properly?
Identify pressing surfaces (C-K)	Look at the different types of pressing surfaces in the clothing service laboratory. Why do you think they are different sizes?
	Look at the pressing surfaces shown on the handout. (See p. 150.) Circle the picture of each piece of equipment as your teacher names it. Which is a needle board? Which is a point presser? Which picture shows a sleeve board? Which is an ironing board? Which is the tailor's ham? Which is a pounding block? Which is a seam roll? Which is a press mitt?
	Identify the location of the pressing surfaces in the clothing service laboratory.
	Make a display of all the types of pressing surfaces. Notice the different sizes and shapes.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
State the uses of the pressing surfaces (C-K)	Look at each pressing surface closely. Where might the point presser be used? Does the point give you a clue? Would you use the point presser for hard-to-reach seams? collars? cuffs? Which piece of pressing equipment looks like two small ironing boards? Which ironing boards are used on a table top? Would you use the sleeve board for a long seam? Which cushion could you use for pressing seams? Why do you think you would use a needle board on the fabric that would have a fur-like feel to it? Why is the pile side of fabric placed face down on the wire side of the needleboard? What would you use to pound seams of heavy fabrics?
Illustrate the uses of the pressing surfaces (C-C)	Match the item to be pressed to the pressing surfaces that should be used. [NOTE TO TEACHER: Display each type of pressing equipment on one end of a large table. Set the ironing board up beside the table. On the other end, place various items to be pressed: seam in corduroy fabric, curved dart, sleeve, inseam of trousers, collar point, curved seam, and wrinkled velveteen. Have the students place the item to be pressed on the pressing equipment that it should be pressed on.]
	Look at a garment that needs pressing. Give examples of which pressing surface might be used.
State how to set up the ironing board (C-K)	View a poster on how to set up an ironing board in the position necessary for pressing. [NOTE TO TEACHER: The sketches on p. 151 could be enlarged and used for the poster.] How do the legs fold out? How do you keep the legs from folding back up?
	Watch as your teacher demonstrates how to set up the ironing board. Why should the ironing board have a pad on it? In your own words, tell how to set up an ironing board.
	Place the steps for setting up the ironing board in the correct order. (See p. 151.)
Describe how to set up the ironing board (C-C)	Watch as a classmate sets up an ironing board in the clothing service laboratory. Describe each step to the class as your classmate demonstrates.
	Describe to the class how to set up an ironing board.
Demonstrate ability to set up the ironing board (P-GR)	Show your classmates how to set up an ironing board.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
State how to take down the ironing board (C-K)	Watch as your teacher shows you how to take down the ironing board. How do you make the legs fold down? Is the ironing board easier to store when it is folded?
Describe how to take down the ironing board (C-C)	Explain to the class how to take down an ironing board.
Show ability to take down the ironing board (P-GR)	Demonstrate to classmates how to take down the ironing board.
	Divide into three teams. Each team will have an ironing board. Team members will take turns setting the ironing board up and taking it down. The last member of each team will place the ironing board in its storage area in the clothing service laboratory. The team to finish first will be the first to practice using the pressing equipment.
Perform the task of setting up the ironing board (P-M)	Set the ironing board up each time it is to be used for pressing.
Perform the task of taking down the ironing board (P-M)	Take down the ironing board for storage.
Identify an iron (C-K)	Listen as your teacher shows and describes an iron. [NOTE TO TEACHER: Remind students that there are three types of hand irons that may be used for pressing and ironing clothes. These are: the dry iron; the steam and dry combination; and the steam, dry, and spray combination.] Which part do you hold? Which part gets hot? Which part turns the iron on? Which part of the iron do you put the water in for steam? Where does the steam come out of the iron?
	View a handout with a picture of an iron. Identify the parts to which the arrows are pointing. (See p. 152.)
Describe an iron (C-C)	Take turns holding the hand iron. Describe each part and what it does to the class. Point to the parts as you discuss them.
	Form a circle and pass around a hand iron. The first person will say, "This is the hand iron." The second person will say, "This is the handle on the hand iron." The third person will say, "This is the control and the handle on the hand iron," and so forth until everyone has described the hand iron.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Identify the controls on the iron (C-K)	Observe the controls on irons you will be using in the clothing service laboratory. Is the setting based on temperature or type of fabric? [NOTE TO TEACHER: Liquid solder can be used on the temperature dial to aid blind students in identifying different settings. For example, one mark for synthetics, two marks for cotton, etc.]
Cite how to set the control on the iron (C-K)	Watch a demonstration by your teacher on how to set the control on a hand iron. What part of the dial is used for steam heat? What is the difference between steam heat and dry heat? Listen to your teacher discuss the settings are used for various types of fabrics. [NOTE TO TEACHER: Use fabric squares with seams down the center. First, press the seams open using a low setting. Then press the seam open with the correct setting so the students can see why it is important to use the correct setting. Stress that using a setting that is too hot may scorch or melt the fabric.] What setting will be necessary for thin, lightweight fabric? Which settings will you use for a heavy, thick fabric? Which settings are used for steam ironing? What will happen if the setting is too hot for the fabric? Why should you test the temperature of the iron by pressing a hidden place in the garment first?
Demonstrate how to set the control on a hand iron (C-Ap)	Show how to move the control to the correct setting on a large control made of posterboard. [NOTE TO TEACHER: Either tell the students which setting to use or give them a fabric sample and have them determine which setting would be best. Fabric samples should include wool, cotton, polyester blends, silk, etc. See p. 153 for instructions on how to make a control.] Which setting is the hottest?
Note procedures for filling a steam iron (C-K)	Watch as your teacher shows you how to fill a steam iron. What kind of water is used in the iron? How much water is added to the iron? Why was a measuring cup used to fill the iron?
Describe procedures for filling a steam iron (C-C)	Take turns explaining to the class how to fill a steam iron with water.
Practice filling a steam iron (P-GR)	Follow steps for filling a steam iron as your teacher shows you each step. Why must the steam button be in an "off" position before adding the water?
	Demonstrate how to fill the steam iron. Ask your classmates for suggestions on how you can improve.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
State safety rules to follow when using the iron (C-K)	Listen as your teacher tells you the safety rules for using a hand iron. [NOTE TO TEACHER: The cards on p. 154 can be enlarged and used as a poster or bulletin board and placed in the laboratory.] Why should you always keep the iron moving? What would happen if you touched the sole plate of the iron when the iron is turned on. Why should you hold the plug and not the cord when unplugging the iron? [NOTE TO TEACHER: Refer to lesson on sewing safety, p. 187 for safety rules to follow when plugging and unplugging the iron.] Name as many of the safety rules as you can.
	Play "Safety Concentration" to learn the safety rules to follow when using the hand iron. (See p. 154.)
	From a box, draw a "Safety Concentration" card and state the safety rule pictured on the card to the class. [NOTE TO TEACHER: Use the cards from the "Safety Concentration" game on p. 154.]
Practice using the iron (P-GR)	Practice moving the control on a hand iron in the clothing service laboratory to different temperature settings as your teacher calls them out.
	Follow the steps for moving the iron up and down and in a gliding motion as your teacher shows you how. [NOTE TO TEACHER: Have the students practice using the iron with the iron in the OFF setting.]
	Set the control and practice using both the dry and steam settings on the iron with your teacher's help. [NOTE TO TEACHER: A heavy fabric that will not scorch easily would be the best to practice on. This learning experience may need to be repeated many times. Use different types and colors of fabric for variety.]
State the correct care of the iron (C-K)	Listen as your teacher describes the correct care of the hand iron. Why should you always hold the plug, not the cord, when disconnecting the iron? When using dry heat, what needs to be done to the iron before putting it away? When using steam heat, what needs to be done to the iron before putting it away?
Explain how to care for the iron (C-C)	Take turns describing to the class how to care for the hand iron. Why is it important to care for the hand iron properly?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Cite how to clean the sole plate on the iron (C-K)	Watch as your teacher demonstrates how to clean the sole plate of a hand iron. Why does the sole plate need to be cleaned when it becomes dirty? State how to clean the sole plate on a hand iron.
Follow procedures for cleaning the sole plate on the iron (P-GR)	Pretend you are cleaning the sole plate of the hand iron. Go through each step of cleaning the sole plate of the iron. Explain what you are doing as if you were actually cleaning the sole plate. [NOTE TO TEACHER: Students will need iron, cloth, etc. for this activity.] What items are used to clean the sole plate?
	Practice cleaning the sole plate of the iron with your teacher's help.
Identify procedures for caring for a steam iron (C-K)	Watch as your teacher demonstrates how to care for a steam iron. How did your teacher empty the water from the steam iron? Why should the water be removed before storing a steam iron?
	Practice matching steps in caring for a steam iron to the correct picture. (See p. 155.)
Practice caring for a steam iron (P-GR)	Try to follow the steps for emptying the water from a steam iron. What position should the steam button be in before you empty the water?
	Practice emptying the water from a steam iron. Have your teacher check your work.
Examine an apparel steamer (P-P)	Look at the apparel steamer in the clothing service laboratory as your teacher uses it.
Identify the basic parts of the apparel steamer (C-K)	View a transparency showing the parts of the apparel steamer. Listen as your teacher names the parts. Name each part as your teacher points to it. (See p. 156.)
	Label the parts of the apparel steamer in the clothing service laboratory. Place name cards on each part. [NOTE TO TEACHER: Index cards (5"x7") with large print can be used for the name cards.]
	Take turns pointing out the parts of the apparel steamer to the class.
Describe the purpose of each part of the apparel steamer (C-C)	Name and describe the purpose of each part of the apparel steamer as your teacher points to it.

WORDS TO KNOW
About Pressing Equipment
(Teacher Information Sheet)

iron - tool with flat metal surface that is heated to remove wrinkles from fabric. An iron may make dry or steam heat. A dial is set to get the right temperature. Some irons can spray extra water on the fabric when needed.

sole plate - the bottom part of the iron which is smooth and has holes in it. This is the part of the iron that gets hot.

temperature control - the dial on the handle of an iron which is used for turning the iron on and setting the temperature.

steam button - the button on the handle of a steam iron which is used to turn the steam "on" and "off."

ironing board - a long, narrow, padded board. It is used as a work surface for ironing or pressing. It usually has folding legs and may be adjusted in height.

apparel steamer - a large piece of equipment used for pressing. The top of the apparel steamer is lowered to press the garment by pressing a small foot pedal or button.

pressing buck - the flat surface of the apparel steamer where clothes are placed to be pressed.

apparel steamer head - the top part of the apparel steamer which is lowered to press the garment.

apparel steamer foot pedal - the part of the apparel steamer which is pressed down with the foot to turn on the steam.

needle board - a strip of canvas covered with fine upright wires. It is used for pressing napped and pile fabrics like corduroy, velvet, and furlike fabrics.

point presser - a wooden board with a pointed end. It is used to press seams and points in garments.

pounding block - a sharp wooden block. It is used to pound and flatten seams and edges of thick, bulky fabrics. It may be combined with the point presser.

press board - a small table-top ironing board.

skirt board - a table-top ironing board for skirts.

sleeve board - a small ironing board used for pressing sleeves and short seams.

tailor's ham - a ham-shaped cushion. It is used for pressing curved and shaped parts of garments.

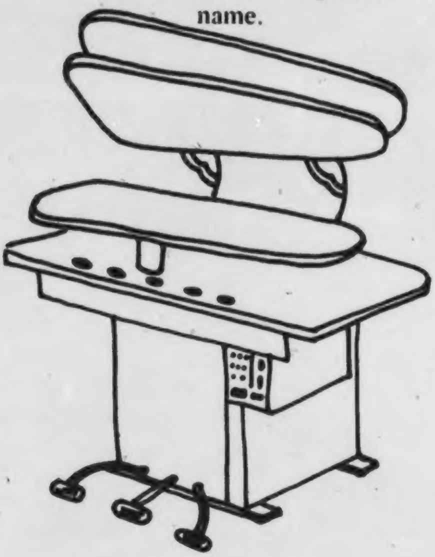
press mitt - a small padded mitt that slips over the hand. It is used to press and shape curved details on garments.

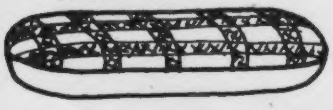
seam roll - a long, padded cushion. It is used to press seams and shape curves.

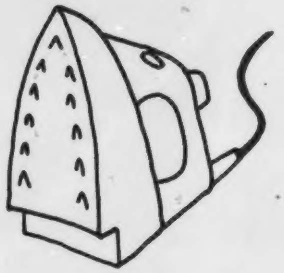
press cloth - a piece of fabric that is put in between the fabric and the iron.

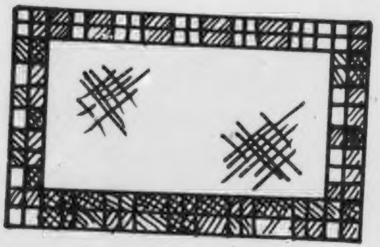
PRESSING EQUIPMENT
(Worksheet)

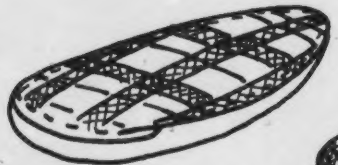
DIRECTIONS: Circle the picture of the piece of pressing equipment as the teacher calls out the name.

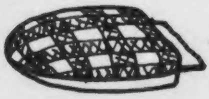


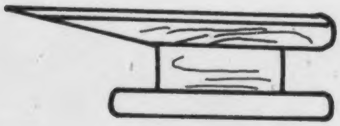


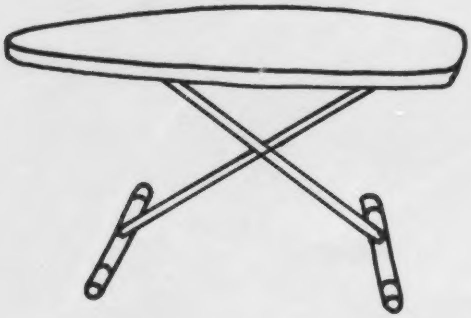


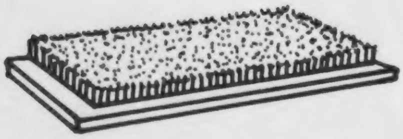












PRESSING EQUIPMENT
(Worksheet)

DIRECTIONS: Draw a line from the name of each piece of pressing equipment to its picture.

APPAREL STEAMER

IRON

IRONING BOARD

NEEDLE BOARD

POINT PRESSER

PRESS CLOTH

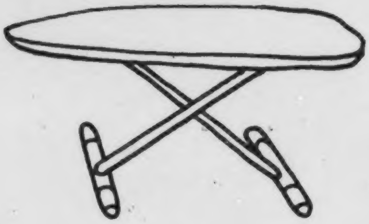
SLEEVE BOARD

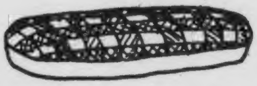
TAILOR'S HAM

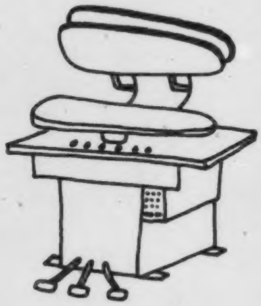
SEAM ROLL

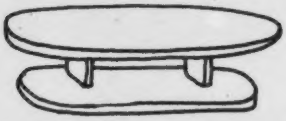
POUNDING BLOCK

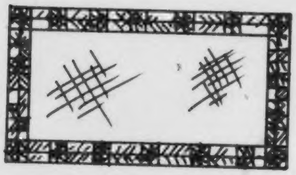
PRESS MITT

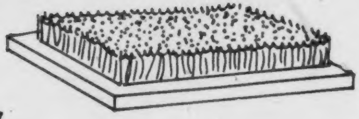


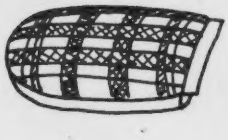


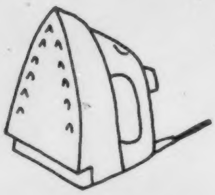


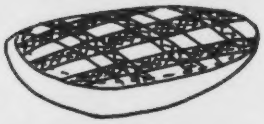


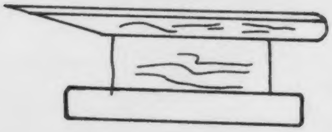




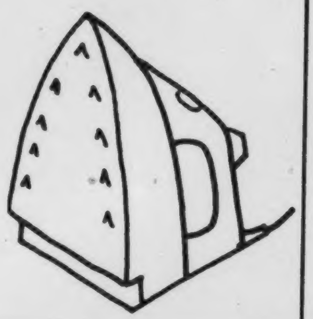
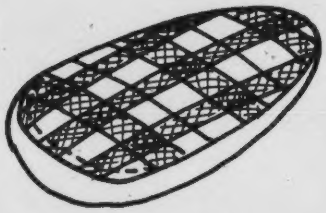
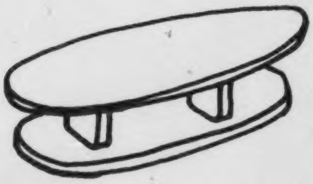
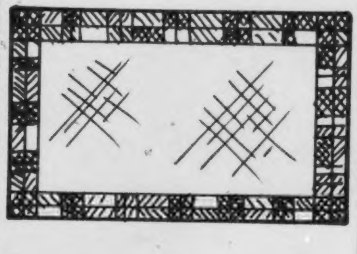
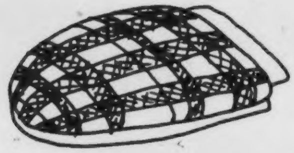
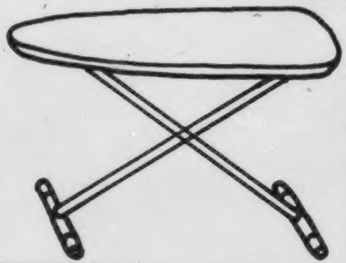
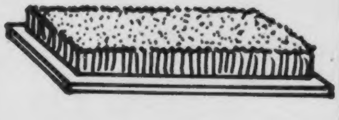
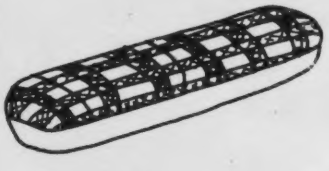




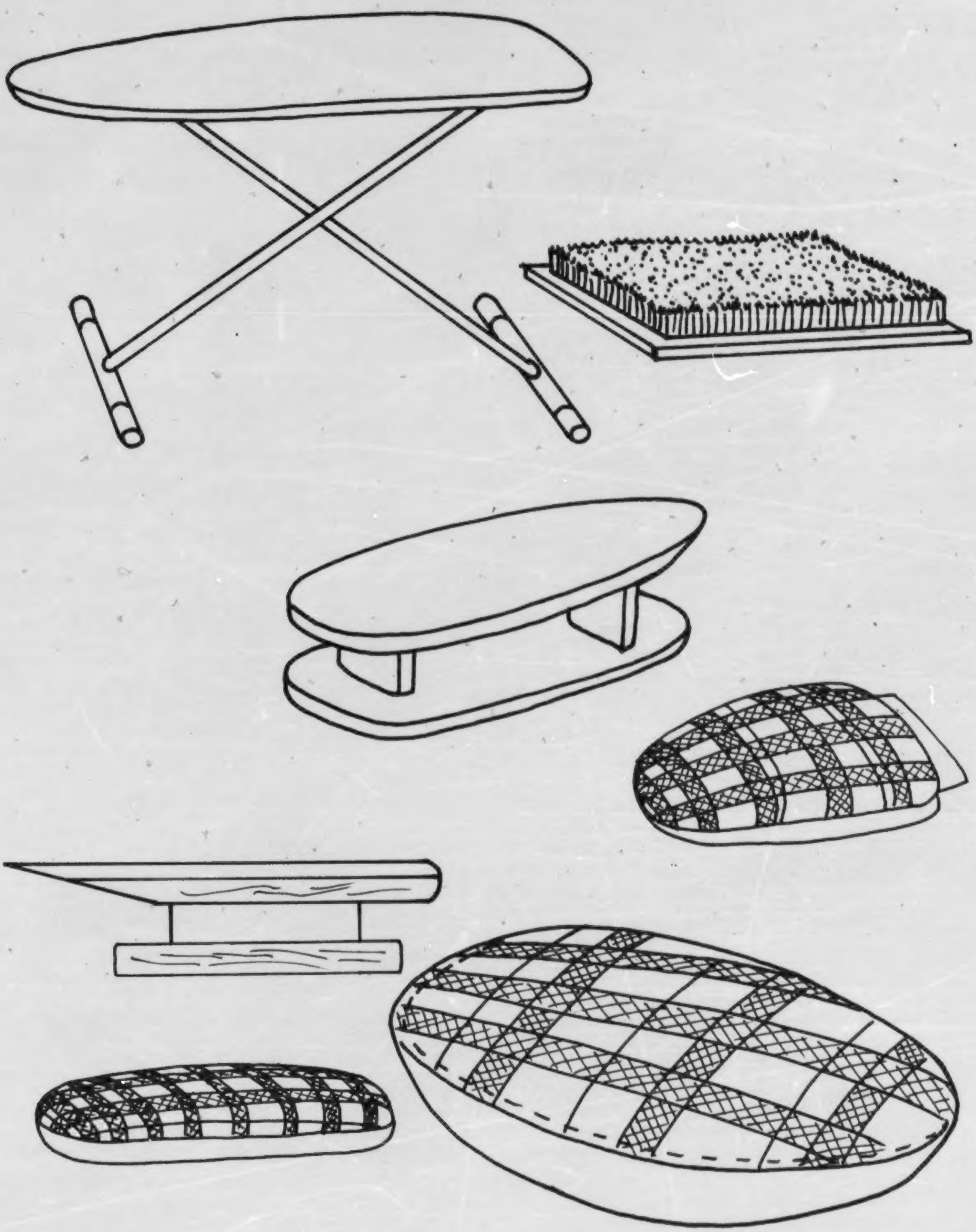




PRESSING EQUIPMENT BINGO
(Game)

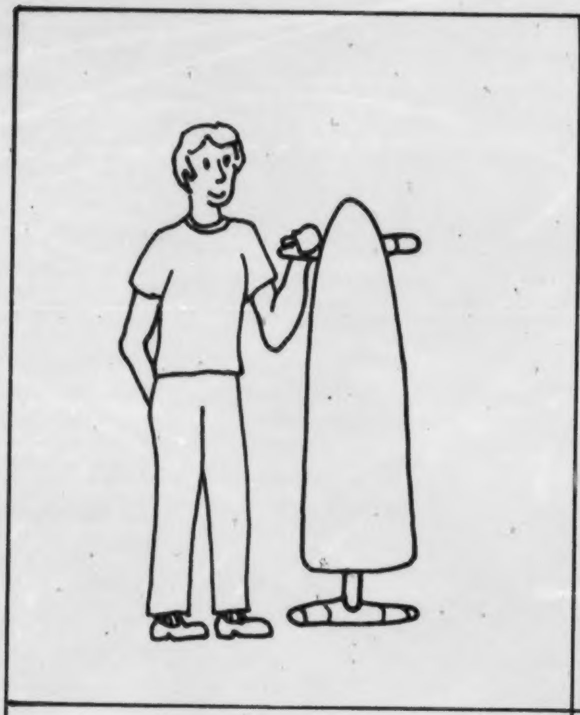
		
		
		

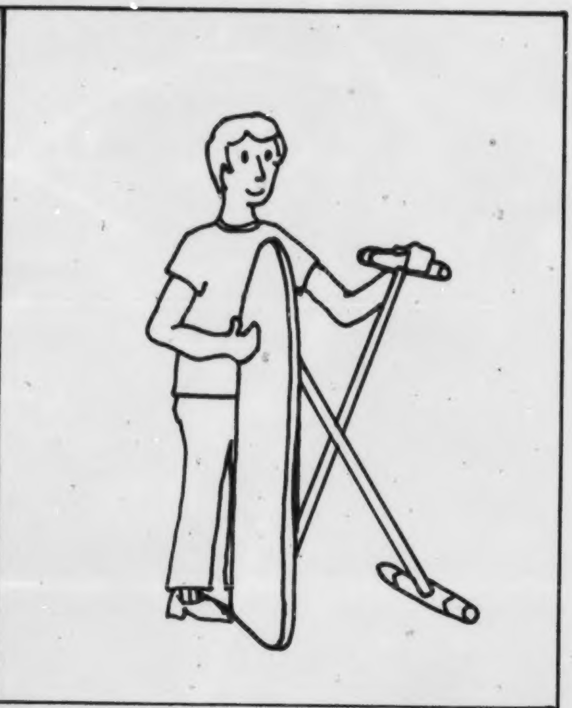
PRESSING SURFACES
(Handout)

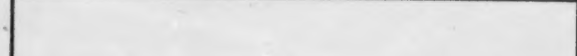


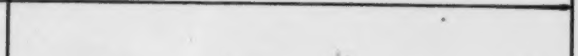
SETTING UP THE IRONING BOARD
(Game)

DIRECTIONS: Cut each picture apart. Arrange them in the correct order.

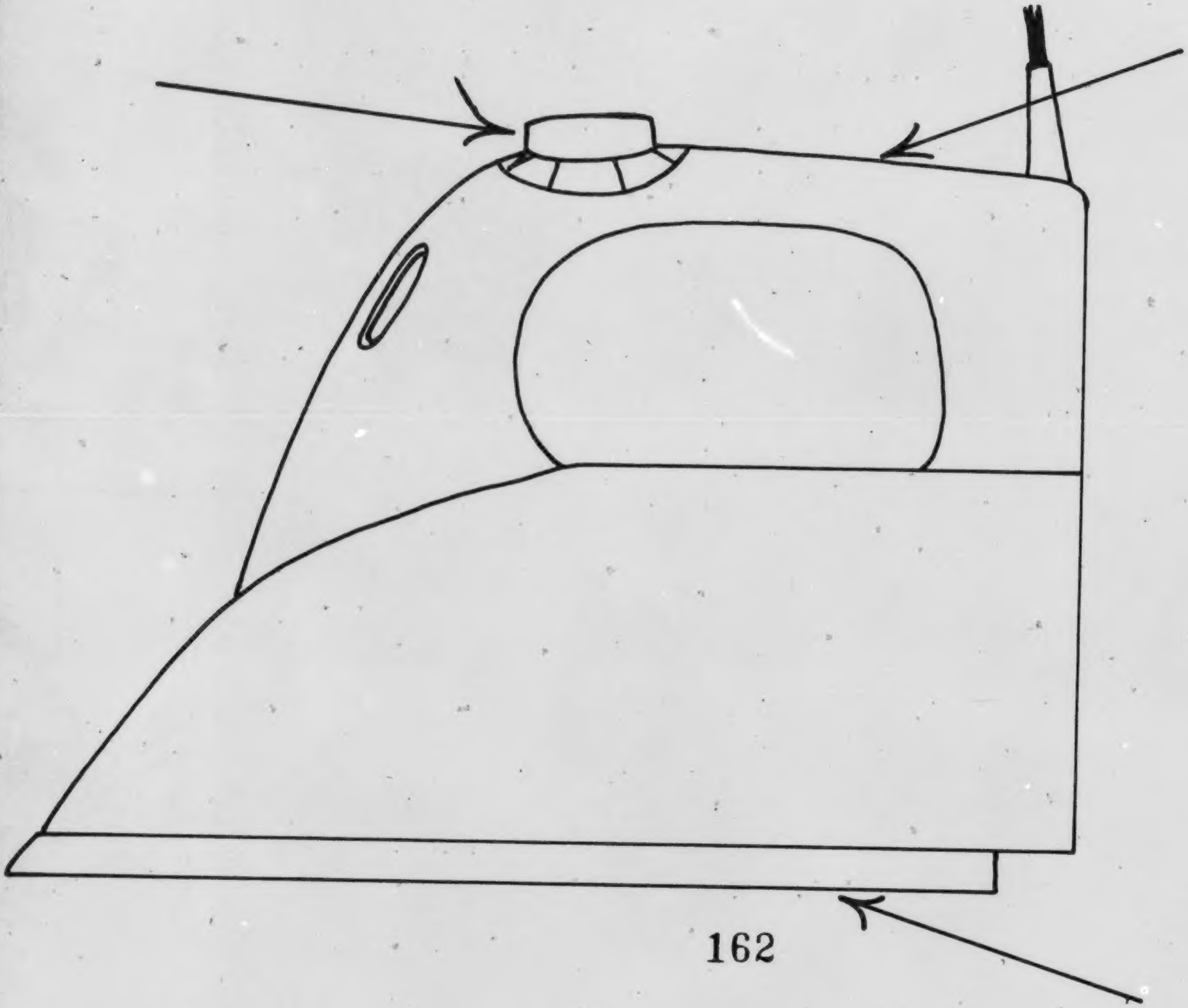




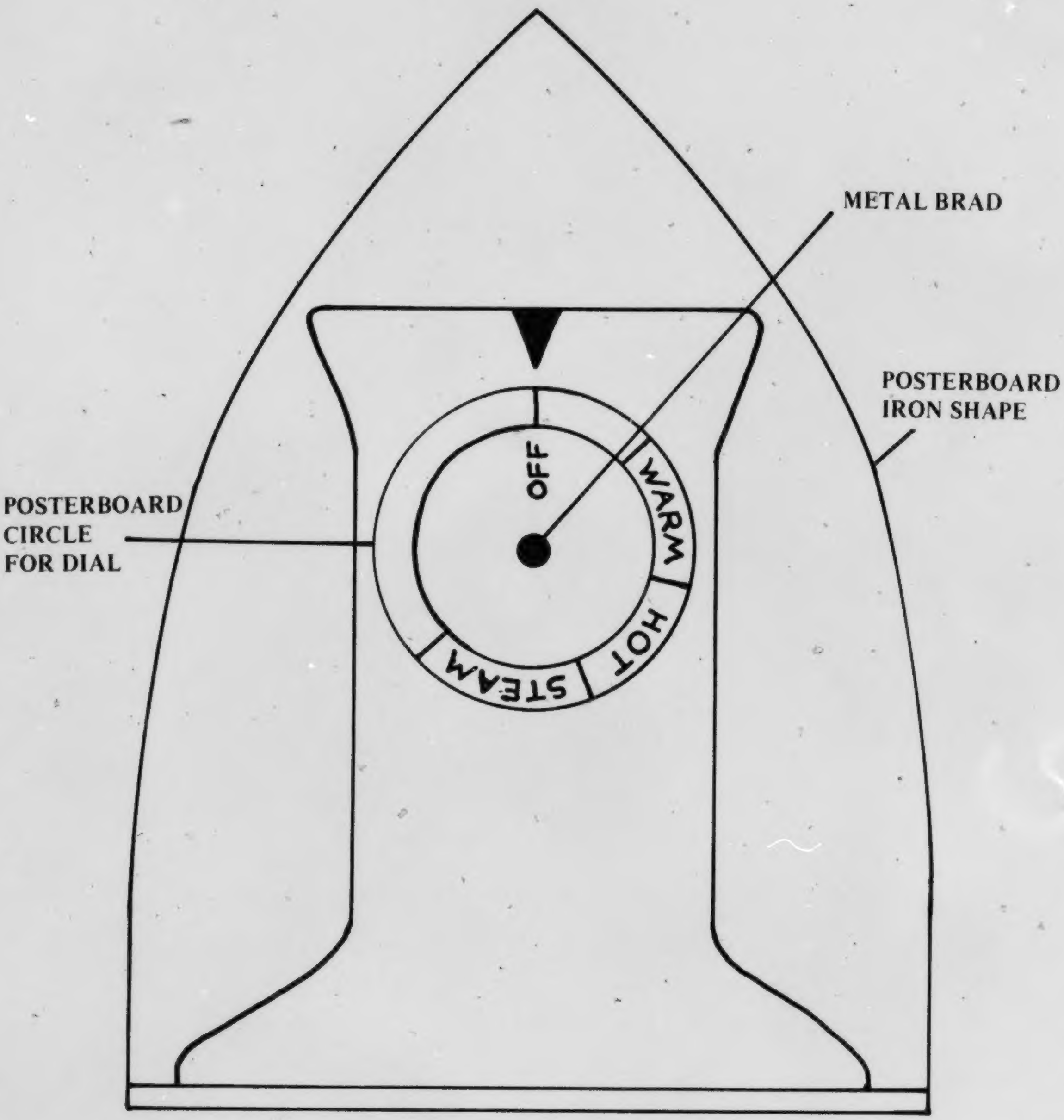




PARTS OF THE IRON
(Handout)



SETTING THE CONTROL

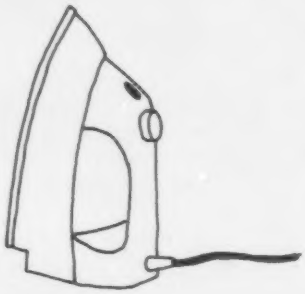


DIRECTIONS: Cut out the shape of an iron from posterboard. Draw on the handle. Cut out a circle to serve as the dial. Draw the markings and letter the settings on the dial. Attach the dial to the iron shape with a brad.

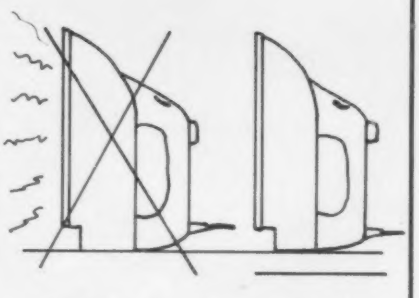
SAFETY CONCENTRATION
(Game)

To Make Cards: (1) Make four copies of each picture. (2) Place on index cards for durability. Laminate or cover with clear adhesive plastic if desired.

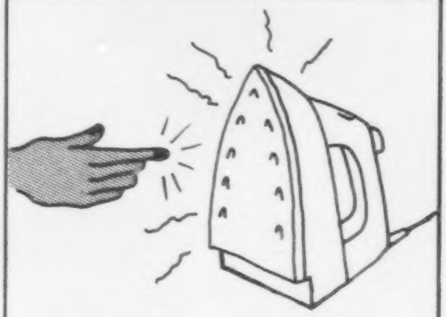
Directions for Play: (1) 2-6 players. (2) Shuffle cards and spread face down on a table. (3) First player selects two cards and tries to make a pair. If the two cards match, the player continues to draw. If the two cards did not match, it is the next player's turn. (4) Play continues until all pairs are matched. The player with the most pairs at the end of the game wins.



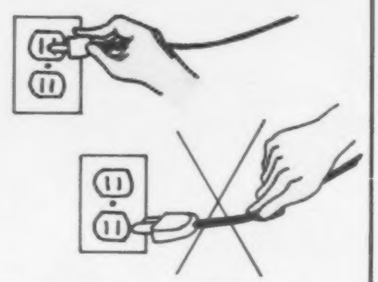
Always set the iron on the heel rest when not in use.



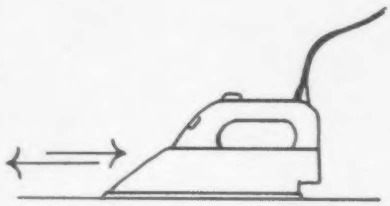
Cool the iron before putting it away.



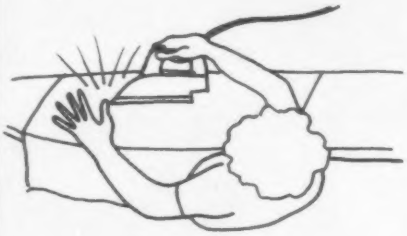
NEVER touch the sole plate to test the temperature.



Hold the plug, NOT the cord when unplugging the iron.



Keep the iron moving so the material will not burn.

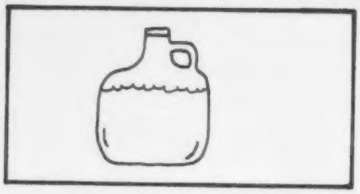


Watch your fingers at all times to avoid burns.

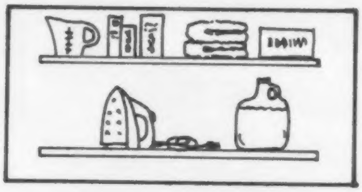
CARING FOR THE IRON
(Handout)

DIRECTIONS: Draw a line from the way to care for the iron to the correct picture that shows how to care for the iron. EXAMPLE:

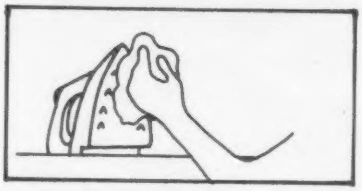
Find the water bottle. ———



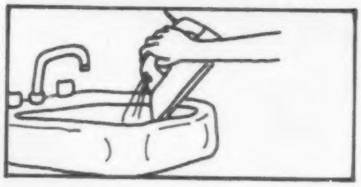
1. Put the water in the iron using a funnel.



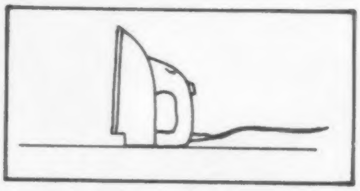
2. Clean the sole plate when necessary.



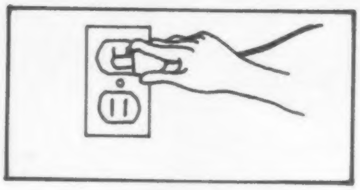
3. Set it on the heel rest when it is being used.



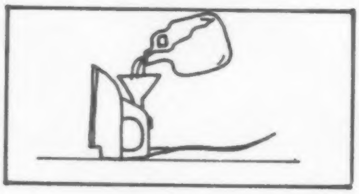
4. Unplug the iron by holding on to the plug—NOT the cord.



5. Drain the water from the iron when you are through using it.

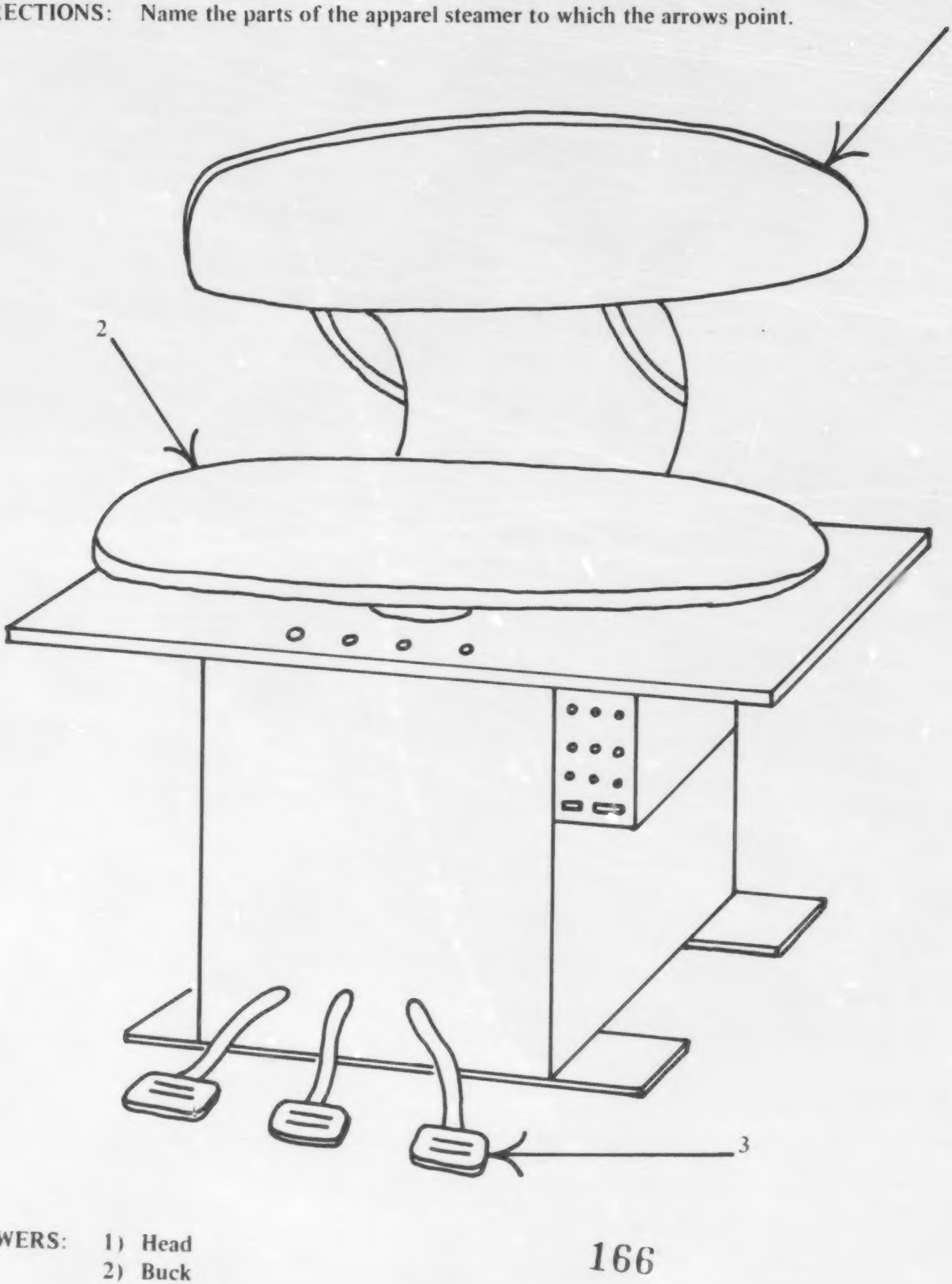


6. Put the iron in the correct storage place.



PARTS OF THE APPAREL STEAMER

DIRECTIONS: Name the parts of the apparel steamer to which the arrows point.



ANSWERS:
1) Head
2) Buck
3) Foot Pedal

166

BASIC SEWING SKILLS

Sewing Safety

COMPETENCY: Ability to safely perform basic sewing skills.

SUB-COMPETENCY: Ability to use sewing tools and equipment safely.

WORDS TO KNOW:

safety
unsafe
rules
plug
outlet
plugging in
unplugging

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
List safety rules to be observed in the clothing service laboratory (C-K)	Help your teacher prepare posters listing the safety rules to be followed in the clothing service laboratory. Display the posters on the walls of the clothing service laboratory so that you can read them often. Include rules such as: (1) Wear appropriate clothing, jewelry, and hair styles so nothing gets caught in the machine. (2) Keep your mind on your work. (3) Take short breaks to relax. (4) Use good posture at the machine. (5) Report all accidents. (6) Handle scissors safely. (7) Don't slide or throw scissors to another person. (8) Keep work area clean. (9) Keep floor clean and avoid spills. (10) Keep pins in pin cushion, never in mouth. (11) Handle seam rippers carefully. [NOTE TO TEACHER: Use transparency masters on pp. 164-174 to make posters. Posters can be displayed in classroom to remind students to observe safety rules.] Play "Safety Hunt" to learn safety rules for using small sewing tools and equipment. [NOTE TO TEACHER: State the safety rules written on the posters which were made in the previous learning experience. After a safety rule is stated aloud, students will go and stand beside the poster on which the rule is written. After the students find the poster, allow them to state the rule in unison without looking at the poster.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Divide into teams of two. Each team will act out a safety rule that is to be followed in the clothing service laboratory. The other students will guess which safety rule the students are acting out. When the students guess the safety rule, your teacher will point to the poster and read the safety rule aloud. [NOTE TO TEACHER: Posters were made in previous learning experience.]
	Listen to a tape recording of safety rules to be observed in the clothing service laboratory. At the pause in the recording say the word that will complete the safety rule. [NOTE TO TEACHER: Using the list of laboratory safety rules made in an earlier activity, record the sentences. Be sure to leave a long enough pause to allow students time to answer. Examples of sentences that might be used: Never put pins and needles in your (pause); Pull long hair to the (pause); etc.]
Identify the safe use of small sewing equipment (C-K)	Look at transparencies showing safe and unsafe use of small sewing equipment. [NOTE TO TEACHER: Select transparency masters from pp. 164-174 which show small sewing equipment safety.]
	Listen to the following story and identify the safe and unsafe usage of the small sewing equipment. When you hear a safe or unsafe use of small sewing equipment raise your hand. Your teacher will ask you what you have heard and why it is safe or unsafe: Dawn was learning how to sew in the clothing service laboratory. While pinning the pattern onto the fabric, she held the pins in her mouth. She accidentally dropped a few pins on the floor. They were so small, she did not pick them up. A friend wanted to borrow her scissors, so Dawn held on the pointed end of the scissors while handing them to her friend. Dawn thought about other things such as homework and her friends while pinning and cutting out her pattern piece. What might happen if you put pins and needles in your mouth? How do you hand scissors to another person? Did Dawn handle the scissors safely? What could happen to another student if they walked across the pins Dawn spilled on the floor?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Describe the safe use of small sewing equipment (C-C)	Describe how to use small equipment safely. [NOTE TO TEACHER: Give each student a small sewing tool such as scissors, pins, needles, cord with plug, etc. and have them role play to show the safe and unsafe use of small sewing equipment. Exchange equipment so that everyone will have the chance to describe the safe use of all the equipment.]
Follow the rules for safety when using small sewing equipment (P-GR)	Practice using small sewing equipment safely under your teacher's supervision in order to receive the "Safety Award." (See p. 175.)
Use small sewing equipment safely (P-M)	Use small sewing equipment safely each time it is used.
Cite safety precautions to follow when using the sewing machine (C-K)	View transparencies showing how to safely use a sewing machine. What might happen if your finger came too close to the machine needle? [NOTE TO TEACHER: Finger guards may be used on sewing machines to prevent accidents.] Why is it important to pay attention at all times when sewing on the sewing machine?
	Listen to a tape recording of general safety rules to follow when using a sewing machine. Repeat in unison each rule after it is stated on the recording. [NOTE TO TEACHER: Include on the recording such safety precautions as: (1) Think about safety at all times; (2) Dress properly when using a sewing machine; (3) Practice good posture; (4) Don't leave open scissors or other sharp objects on the machine; (5) Turn off the motor when the machine is not being used; and (6) Hold the plug, not the cord, when disconnecting or plugging in the sewing machine. Be sure to leave enough time between each rule to enable the students to repeat the rule.]
	Name safety rules you should follow when using the sewing machine. [NOTE TO TEACHER: List the safety rules on a chalkboard or flipchart as students name them.]
Give examples of safety rules to follow when operating the domestic sewing machine and commercial sewing machines (C-C)	Draw a sheet of paper with a safety rule listed on it. Act out the safety rule by giving examples of how to follow the rule either on the domestic or commercial sewing machine. [NOTE TO TEACHER: Place the sheets of paper illustrating safety rules in a box for students to draw. See pp. 176-186.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Identify the correct procedure for plugging in and unplugging electrical equipment (C-K)	Watch as your teacher shows you how to plug in and unplug electrical equipment. [NOTE TO TEACHER: Explain to the students the importance of never inserting anything into a socket except the plug or an outlet cover. The student could be seriously injured or even killed if metal or other objects were put into the socket. Also stress the importance of handling the plug with dry hands. One should never handle a plug with wet hands, or stand in a wet or damp spot when inserting or removing a plug. Show the students what is meant by a loose or exposed wire on the plug or cord. Tell the students never to use such a plug or cord. This can be reinforced by giving the student a defective plug or cord and encouraging the student to throw the defective plug or cord away. A good safety precaution for the VEH laboratory is to cover unused outlets with plastic outlet covers.] Why should the electrical equipment be turned off before it is plugged into the outlet? View a transparency showing the right and wrong way to unplug a piece of equipment. (See p. 187.) Which picture shows the right way to unplug a piece of equipment? Which picture shows the wrong way to unplug a piece of equipment? What will happen if it is unplugged the wrong way?
Illustrate how to plug in or unplug equipment (C-C)	Describe where you place your hand on an electrical cord in order to plug it in. Show while holding the cord where you should place your hand when unplugging the equipment. [NOTE TO TEACHER: Plastic tongs may be used to hold on to the plug to make plugging in and unplugging equipment easier for those with limited use of arms.]
Practice plugging in and unplugging electrical equipment (P-GR)	Divide into two teams. Team 1 will take turns plugging in a piece of electrical equipment in the clothing service laboratory under the teacher's supervision. [NOTE TO TEACHER: Make sure the students completely insert the plug into the wall outlet because poor contact can overheat the outlet and plug.] After Team 1 plugs in the equipment, Team 2 will unplug the equipment. Watch as the other students plug in and unplug the equipment. Help the teacher see if it is being done correctly and safely. Team 2 will then plug in the equipment while Team 1 unplugs the equipment.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Perform the task of safely plugging in and unplugging electrical equipment (P-M)	Perform the task of correctly plugging in and unplugging the electrical equipment when it is used.
Define safety rules for using pressing equipment (C-K)	View transparencies showing both the safe and unsafe way to use pressing equipment. (See pp. 188-191.) Which is the correct way?
	Watch as your teacher demonstrates how to use the pressing equipment safely. How does your teacher hold the iron? After pressing, where does your teacher place the iron?
Explain the safety precautions to follow when using pressing equipment (C-C)	Listen as your teacher states a safety precaution to follow when using pressing equipment. Explain why it is necessary to use it safely. What might happen if the rule wasn't followed?
Apply safety rules when using pressing equipment (C-Ap)	Demonstrate to your teacher how to use pressing equipment safely. [NOTE TO TEACHER: Allow students to apply pressing techniques safely with a cold iron before using a heated iron.]
	In groups of three show how to use pressing equipment safely. Choose one member of the group to be the supervisor. The supervisor will point out incorrect or unsafe uses of the pressing equipment. Take turns being the supervisor.
State sewing safety rules (C-K)	Play "Sewing Machine Safety" to become more familiar with safety rules for sewing. (See pp. 192-195.)
	Explain why the statements that allow you to move forward on the "Sewing Machine Safety" gameboard are good safety rules to follow. Explain to the class why you move back on some of the statements. What might happen if you put pins in your mouth? Dropped pins on the floor? Let scissors lay around with blades open? Slid scissors across the table to a friend? Talked to a classmate while sewing? Unplugged the machine by holding onto the cord? Threw a seam ripper to a friend? Left the iron with the sole plate on the fabric?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Form habits of safely using the equipment in the clothing service laboratory (A-V)	Use safe habits at all times when using equipment in the clothing service laboratory. Report to your teacher if another student does not follow the safety rules.

WORDS TO KNOW
About Sewing Safety
(Teacher Information Sheet)

safety - the state of being free from harm. Being safe means not getting hurt or injured by keeping accidents from happening.

unsafe - not doing what should be done to keep you from getting hurt.

rules - guides to follow.

plug - the pronged part on the end of an electrical cord. It is pushed into an outlet to connect the electricity.

outlet - a place into which the prongs of a plug are pushed. It may be in the wall or floor.

plugging in - pushing the plug into the outlet.

unplugging - pulling the plug out of the outlet.

PERSONAL SEWING SAFETY
(Transparencies)

YES

Wear simple, tailored clothes. Pull long hair back.

NO

DON'T wear loose clothing or dangling jewelry.

PERSONAL SEWING SAFETY

YES
Keep you mind and your eyes on your work.

176

NO
DON'T daydream or visit while sewing.

177

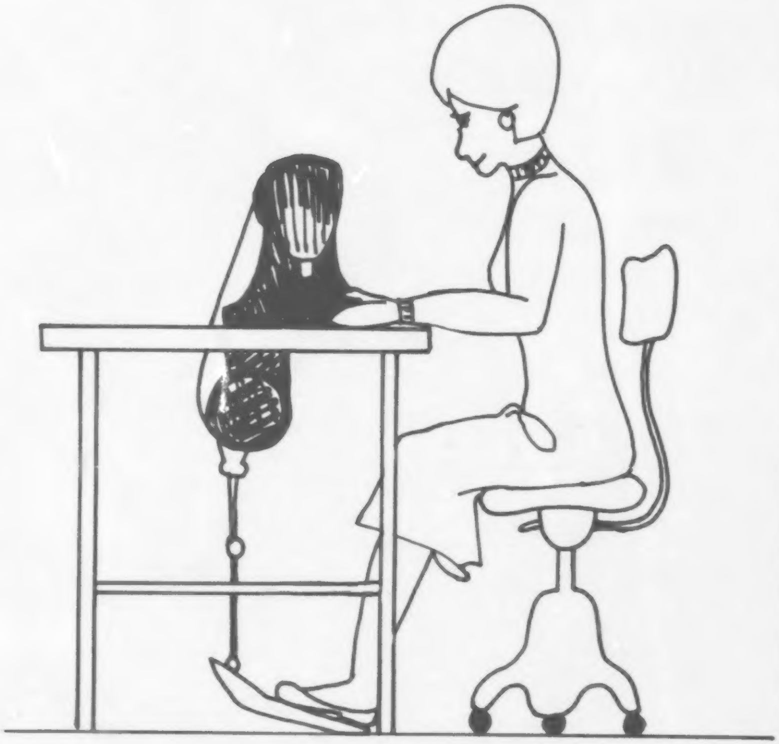
PERSONAL SEWING SAFETY

YES	NO
When you sew for a long time, take short breaks to relax.	DON'T work too long without stopping.

PERSONAL SEWING SAFETY

YES

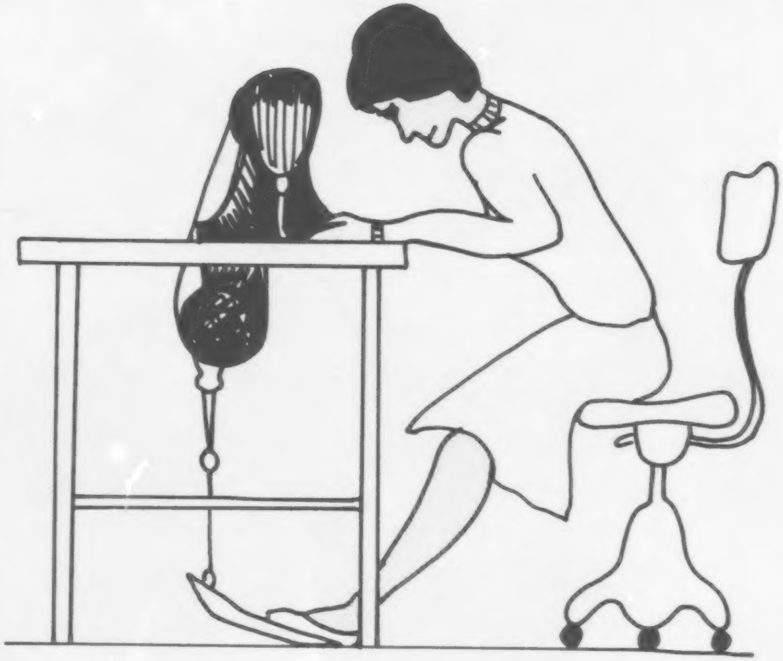
Use good posture when sewing.



180

NO

DO NOT sit on the edge of your chair and lean forward to sew.



181

PERSONAL SEWING SAFETY

YES

Report all accidents.

182

NO

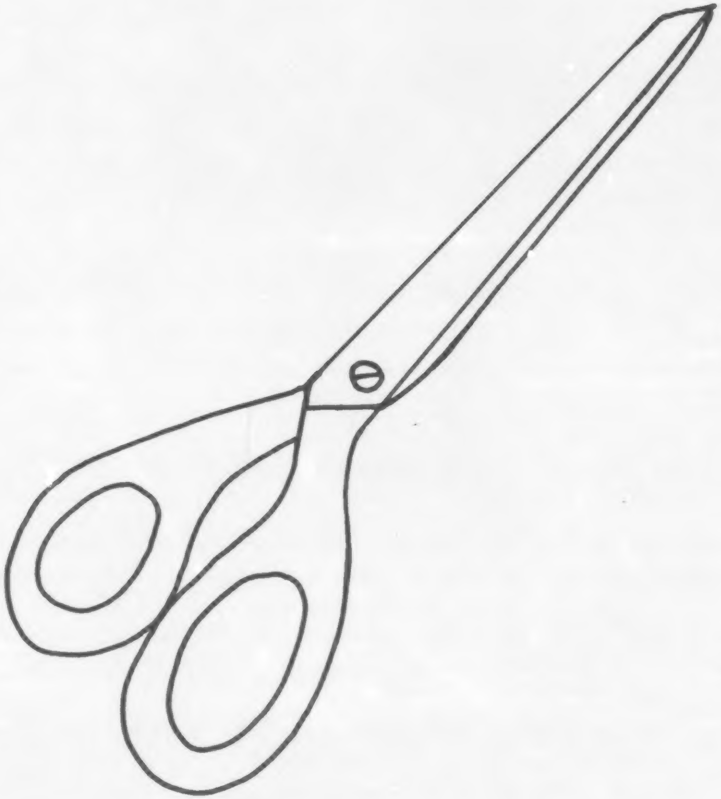
NEVER hide an accident from your teacher.

183

SCISSORS SAFETY
(Transparencies)

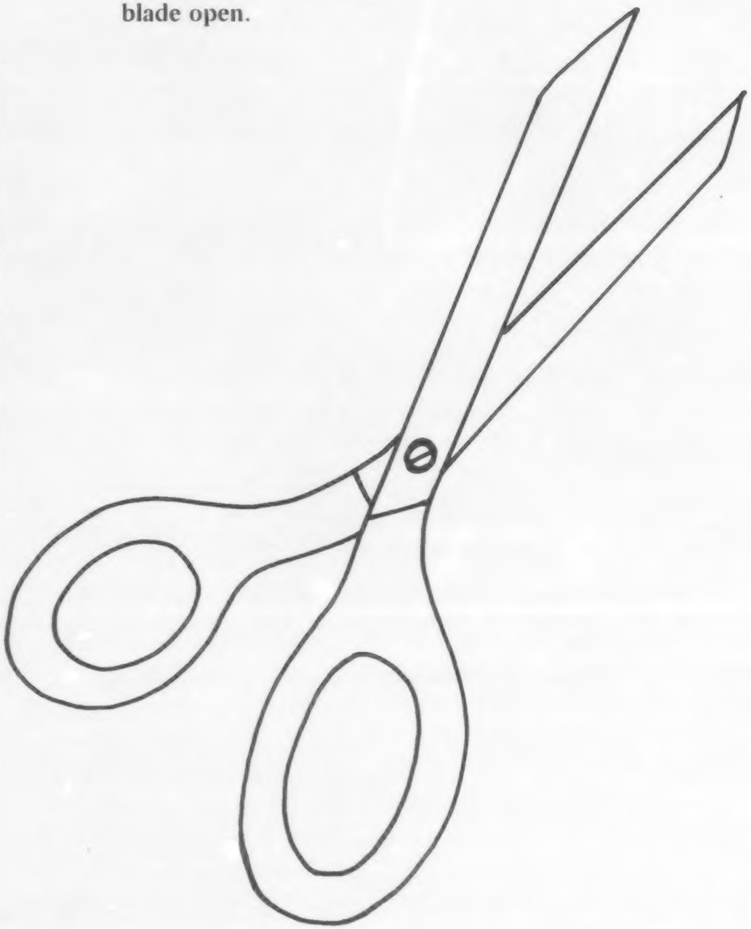
YES

Handle scissors carefully.



NO

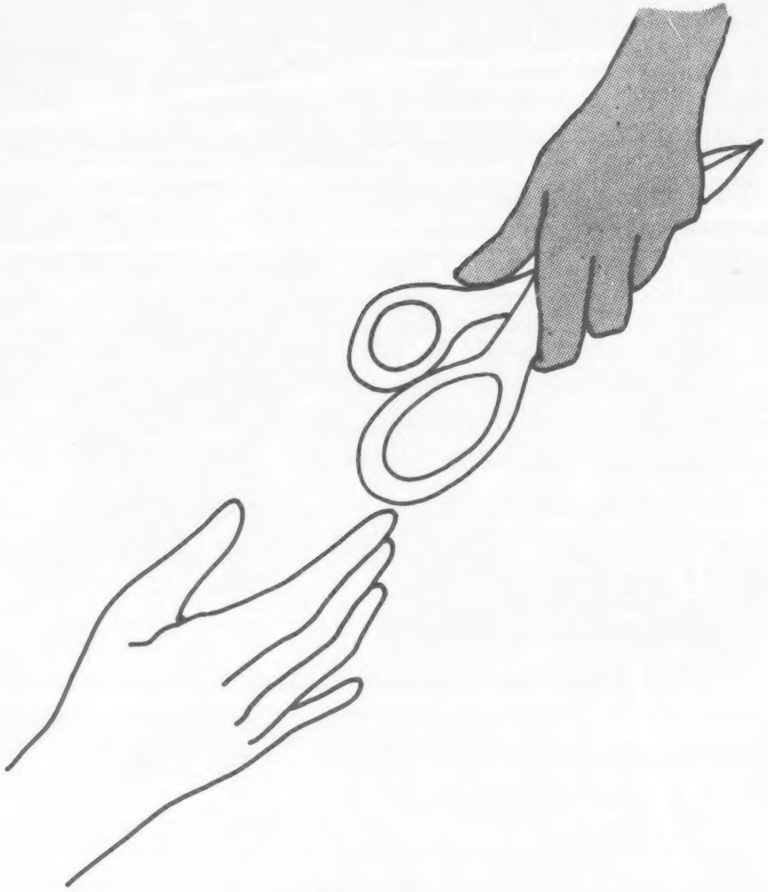
DON'T leave scissors with the blade open.



SCISSORS SAFETY

YES

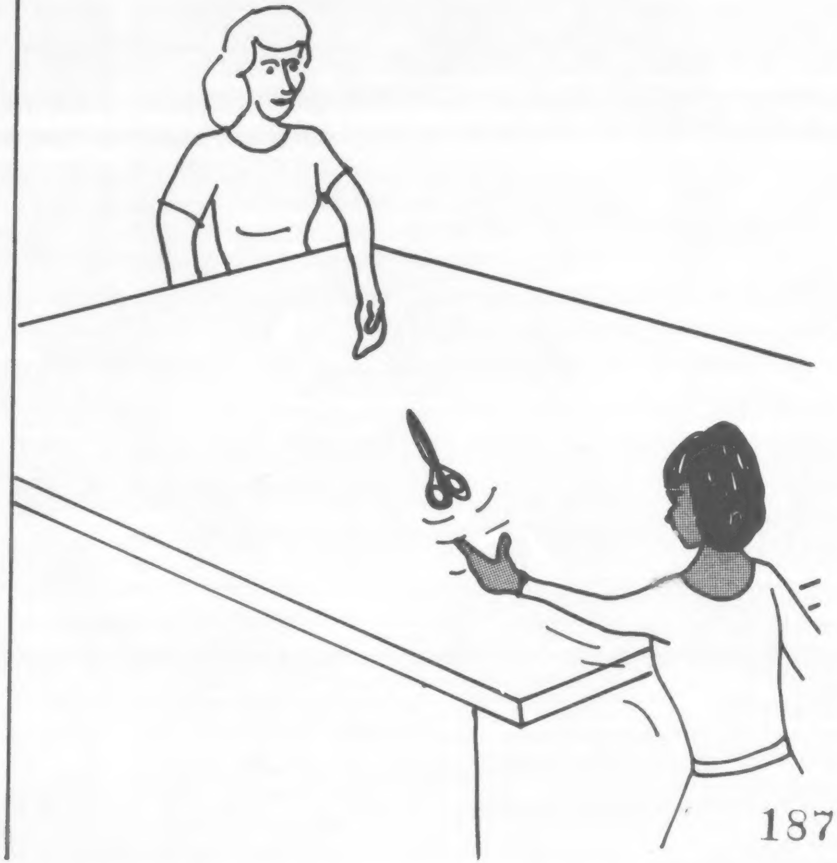
Hand scissors handle first.



186

NO

NEVER slide or throw scissors to another person.



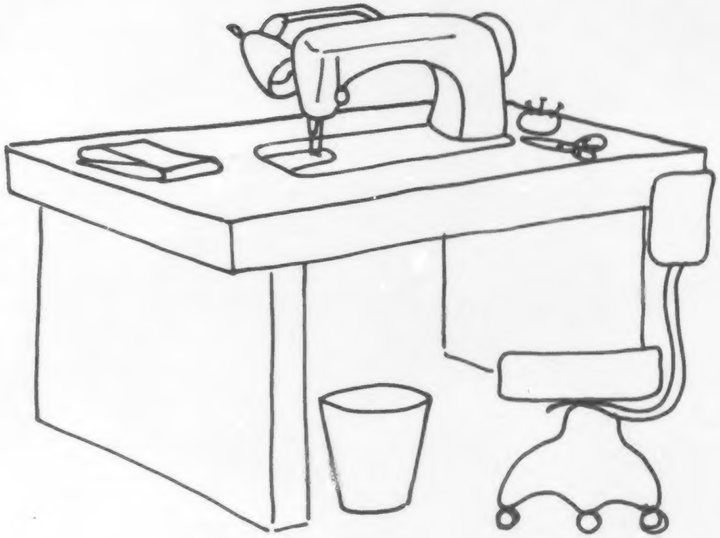
187

WORKING SAFELY

(Transparencies)

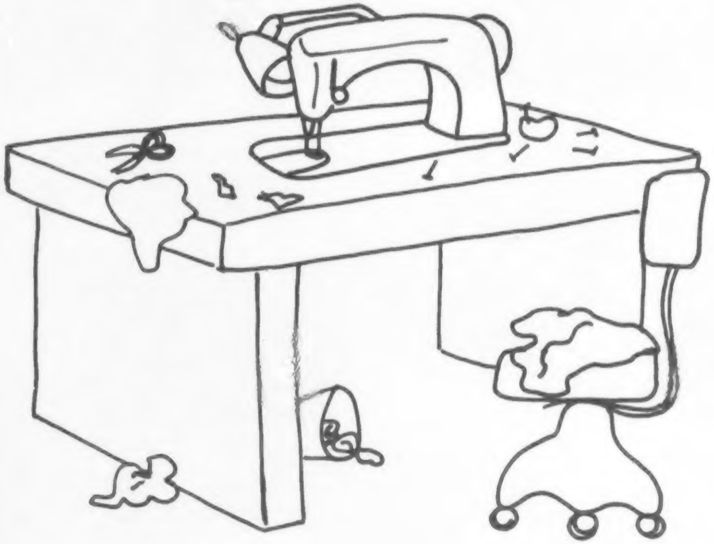
YES

Keep your work area clean.



NO

DON'T leave clutter and trash in your work area.



WORKING SAFELY

YES

Keep the floor clear and clean.

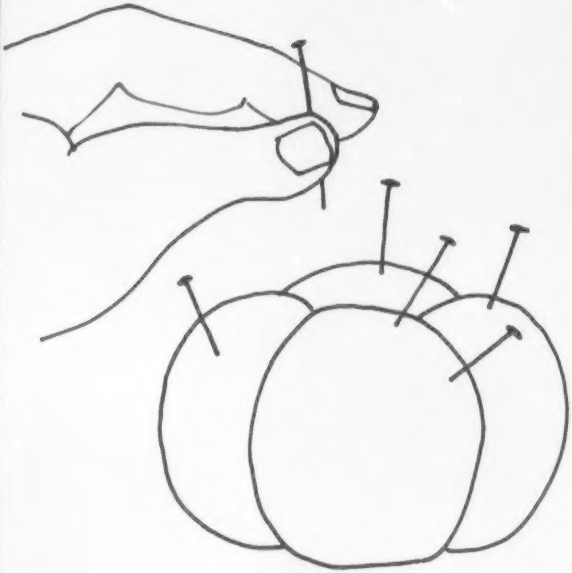
NO

AVOID spills. If you spill, wipe it up quickly.

WORKING SAFELY

YES

Put pins in a pin cushion.



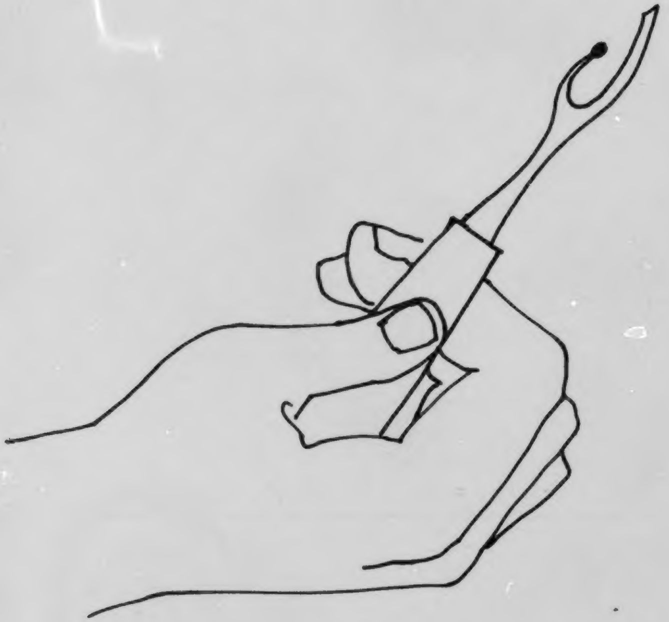
NO

DON'T put pins in your mouth or drop them on the floor.

WORKING SAFELY

YES

Handle seam ripper carefully.



192

NO

NEVER throw a seam ripper.

193

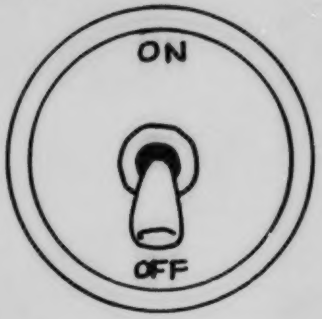
SAFETY AWARD
(Evaluation Sheet)

TASK The Student can safely:	YES	NO	Areas for Improvement
1. Hand the scissors to another student.			
2. Report accidents.			
3. Handle a seam ripper carefully.			
4. Keep pins in pin cushion.			
5. Use good posture.			
6. Keep mind on work.			
7. Pick up all dropped items.			
8. Dress for sewing.			

SEWING MACHINE SAFETY
(Transparencies)

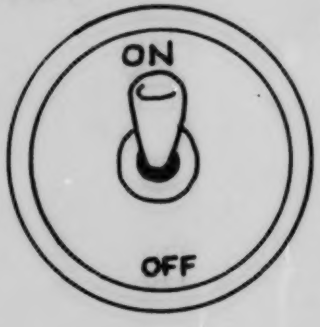
YES

Turn motor off when machine is not in use.



NO

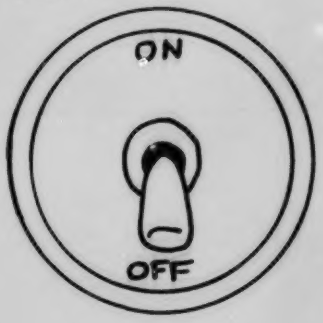
DON'T leave the machine on when you leave it.



SEWING MACHINE SAFETY

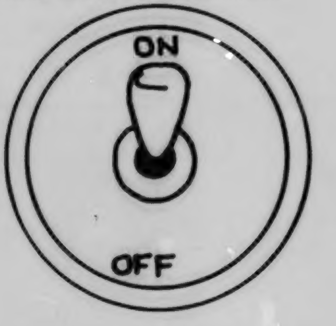
YES

Turn motor off when cleaning the sewing machine.



NO

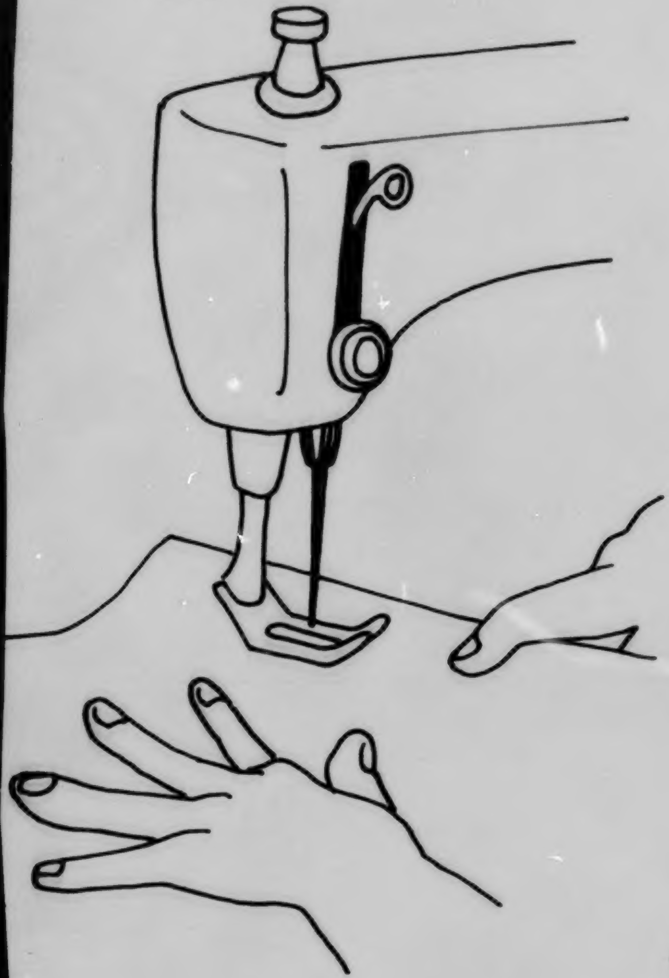
NEVER leave the motor on when cleaning the sewing machine.



SEWING MACHINE SAFETY

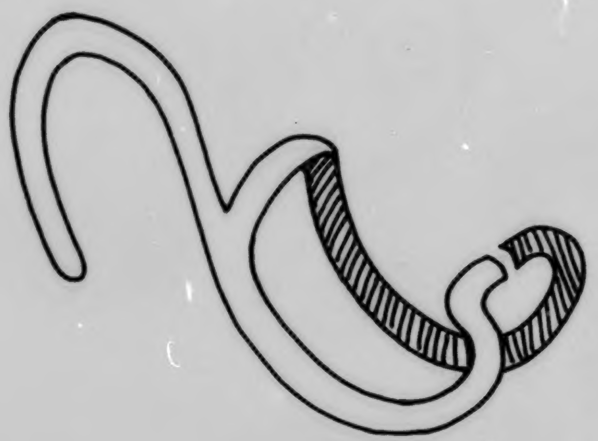
YES

Keep your hands away from the needle.



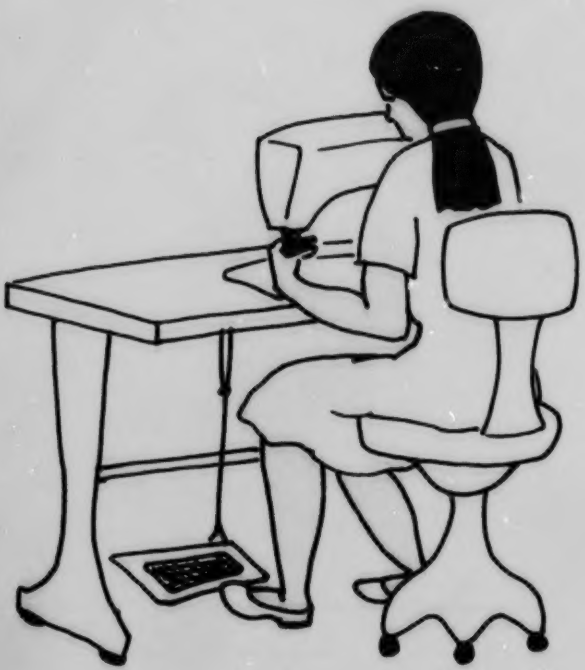
NO

DO NOT remove safety guards.

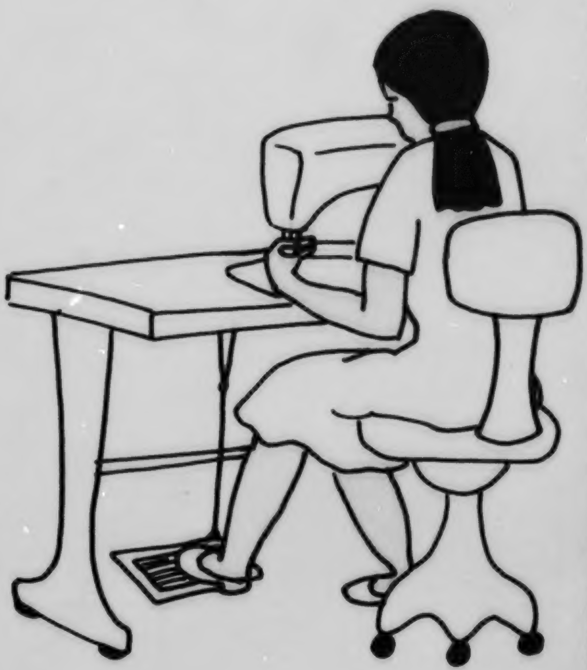


SEWING MACHINE SAFETY

YES
Take your feet off the foot control when threading or changing the needle.



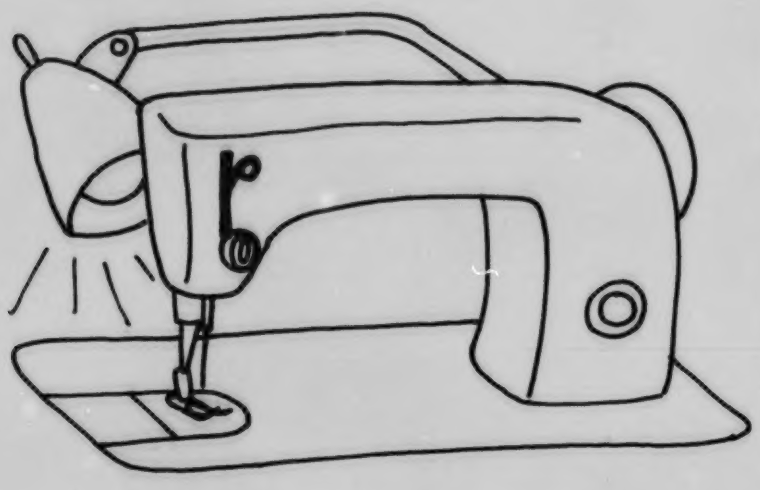
NO
DON'T try to thread or change the needle with your feet on the foot control.



SEWING MACHINE SAFETY

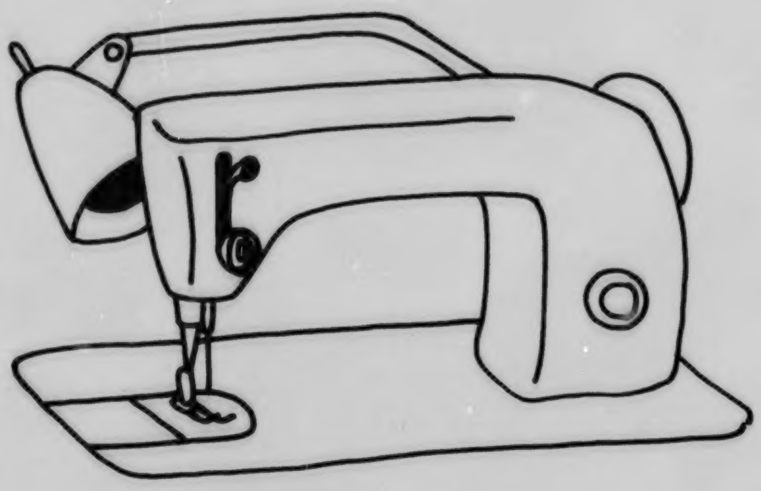
YES

Replace light bulb as soon as it burns out.



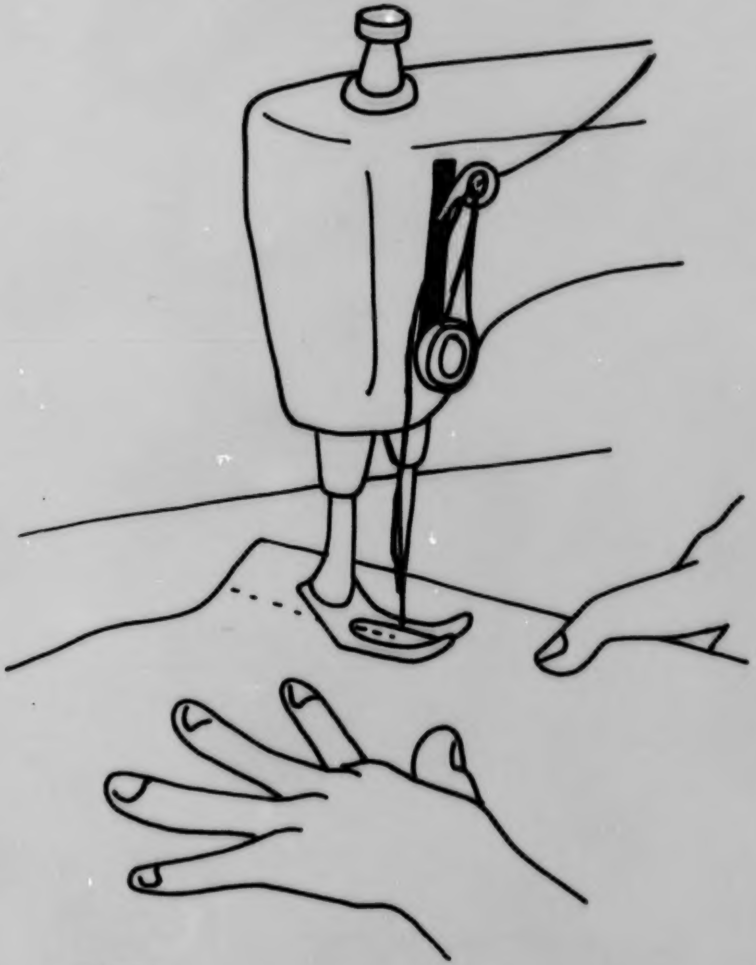
NO

DON'T sew without enough light.

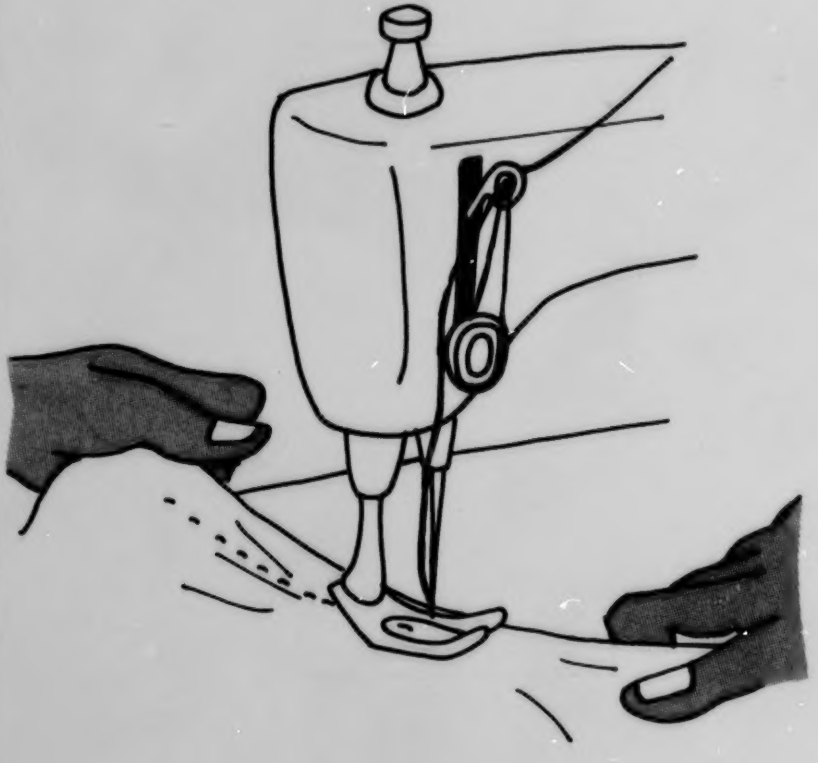


SEWING MACHING SAFETY

YES
Guide material gently as the machine pulls it through.



NO
DON'T pull material through the machine.



SEWING MACHINE SAFETY

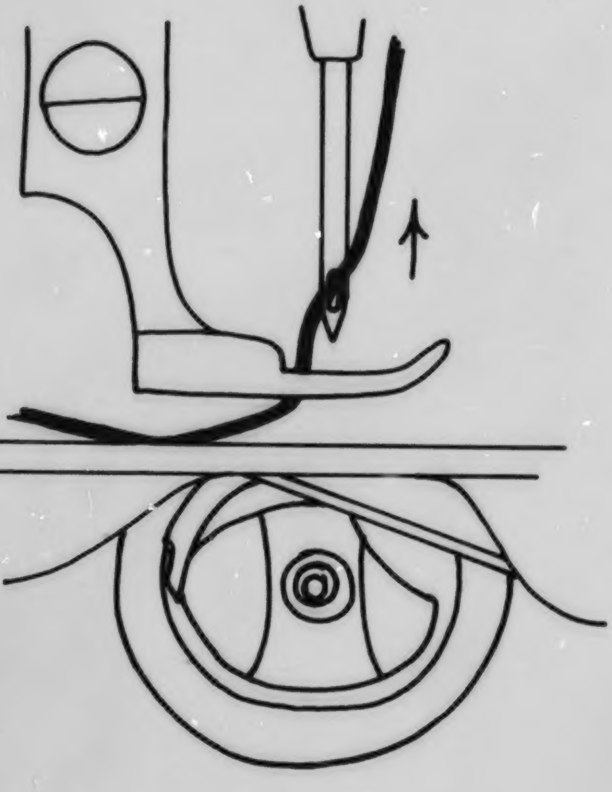
YES
Use the foot control to start the machine.

NO
DON'T turn the hand wheel to start the machine.

SEWING MACHINE SAFETY

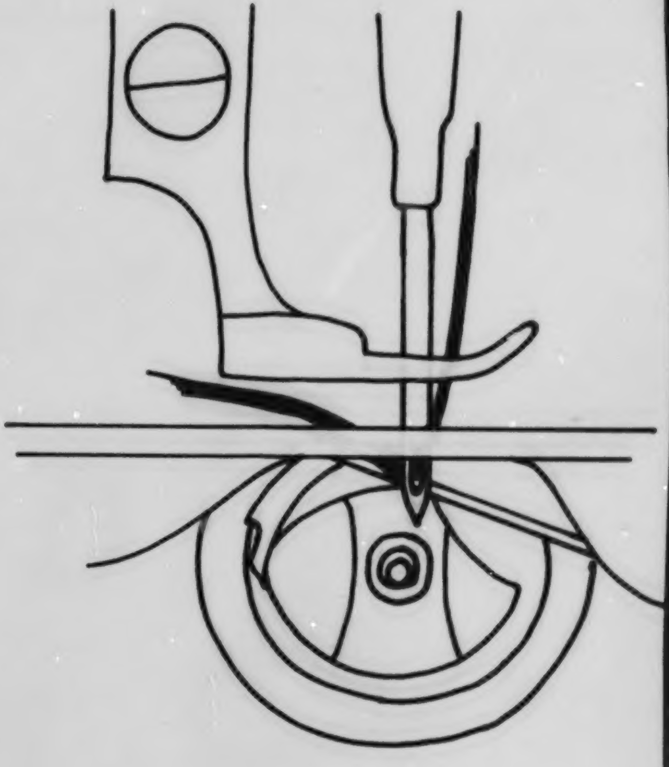
YES

Raise the needle before putting the bobbin case in the machine.



NO

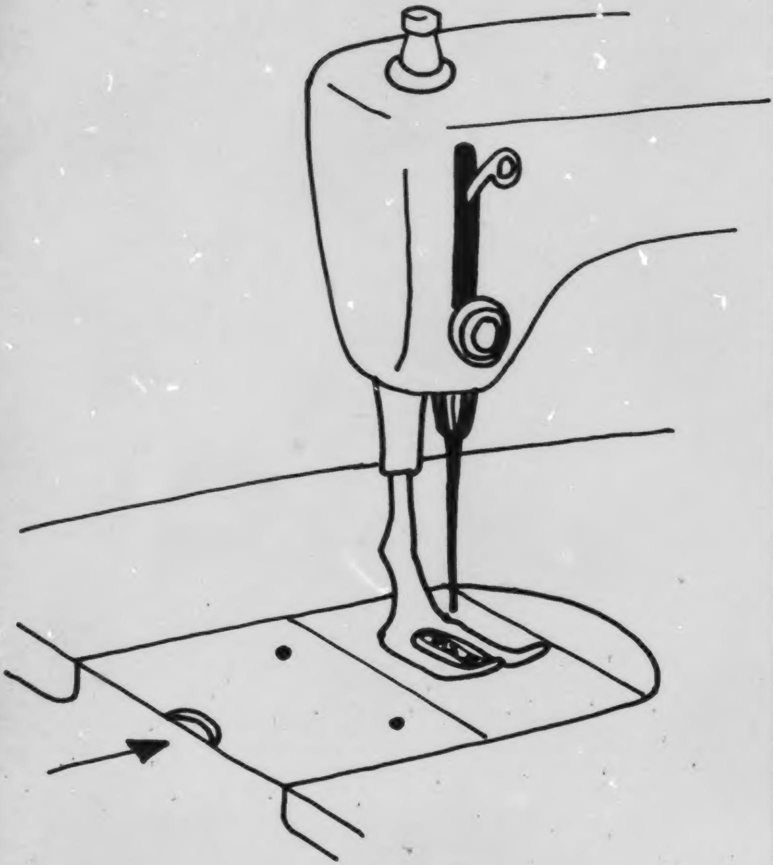
DON'T try to put the bobbin case in when the needle is down.



SEWING MACHINE SAFETY

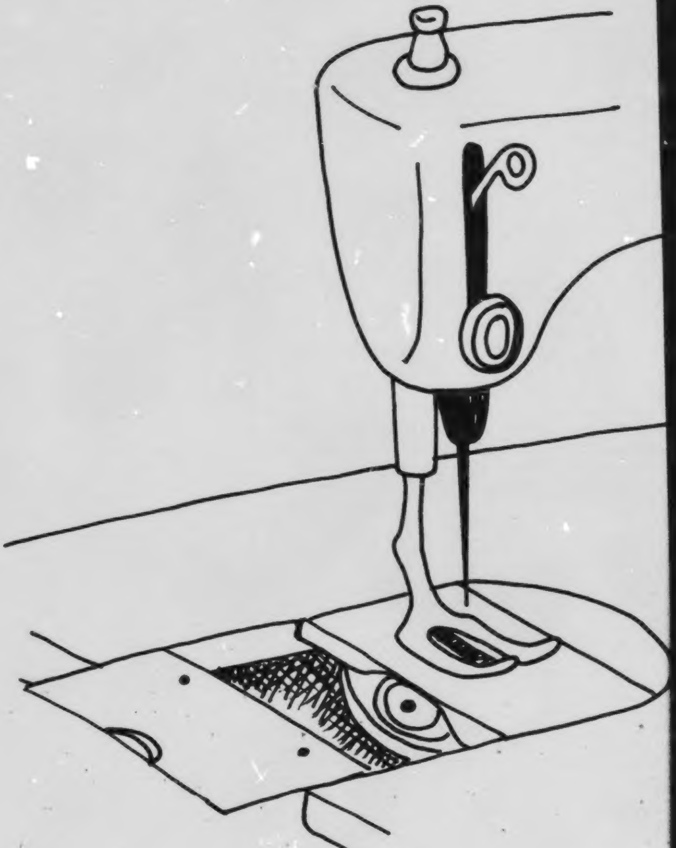
YES

Close the bobbin cover before sewing.



NO

NEVER sew with the bobbin cover open.



SEWING MACHINE SAFETY

YES

Report any sign that the machine is broken.

?
This machine is making a clanging Noise!

NO

DON'T keep sewing if the machine makes a strange sound or does not stitch right.

SEWING MACHINE SAFETY

YES

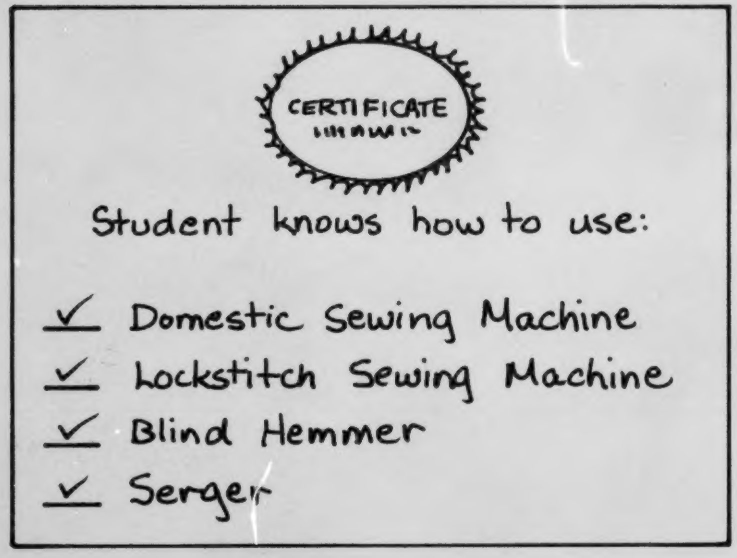
Call your teacher when your machine needs an adjustment you cannot make.

NO

NEVER try to make adjustments you do *not* know how to do.

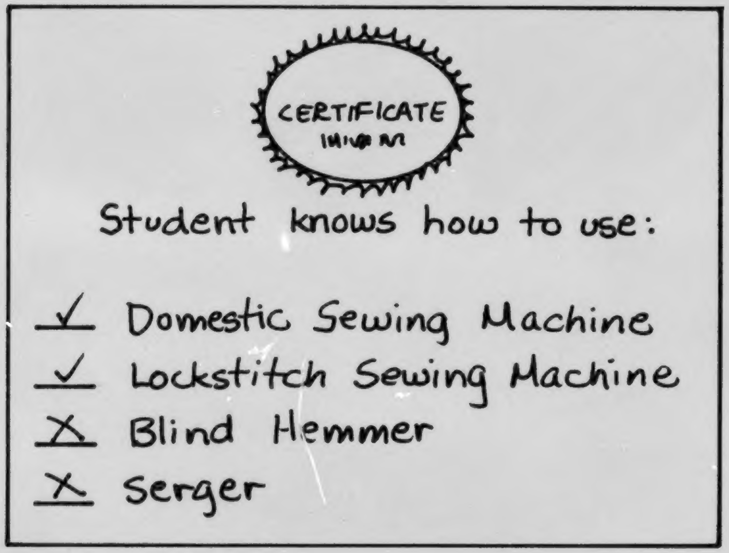
SEWING MACHINE SAFETY

YES	NO
Use only machines you have been trained to operate.	NEVER try to operate a machine you have not used before.



Student knows how to use:

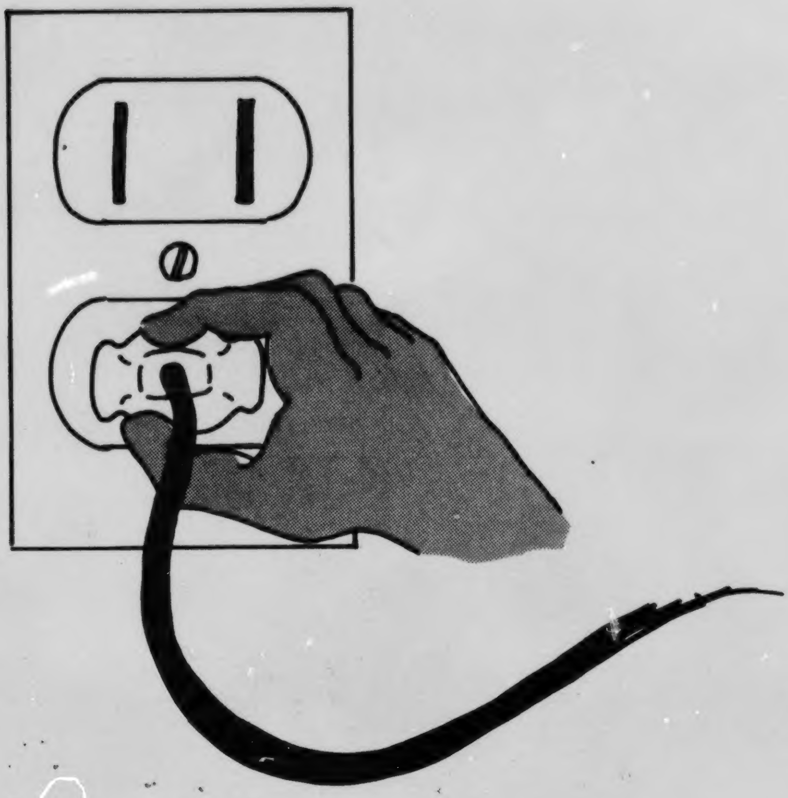
✓ Domestic Sewing Machine
✓ Lockstitch Sewing Machine
✓ Blind Hemmer
✓ Serger

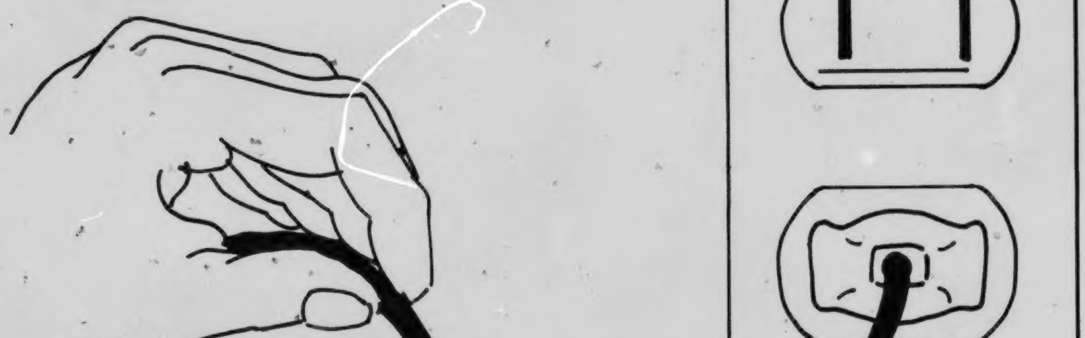


Student knows how to use:

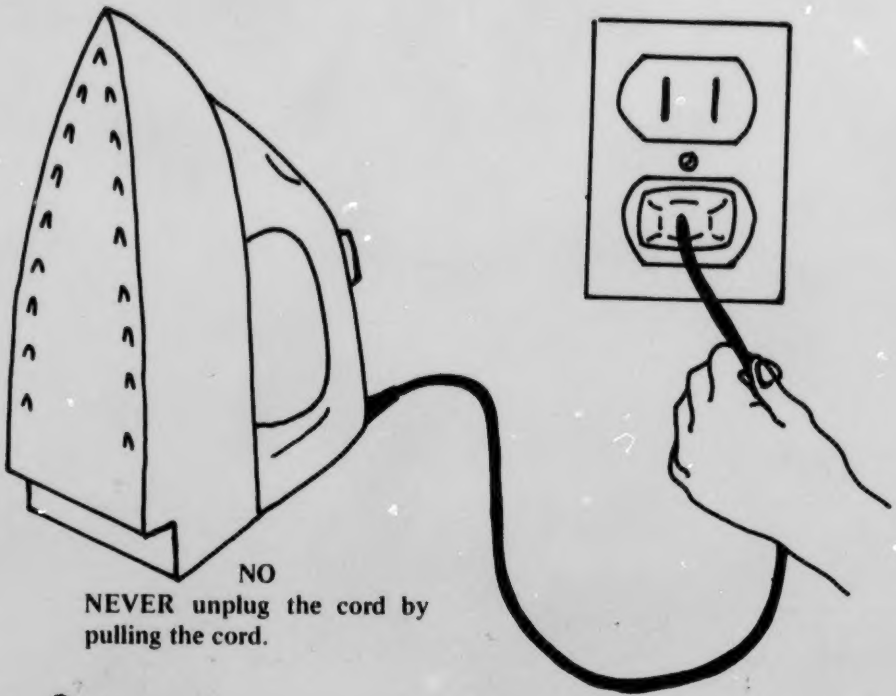
✓ Domestic Sewing Machine
✓ Lockstitch Sewing Machine
X Blind Hemmer
X Serger

PLUGGING IN AND UNPLUGGING ELECTRICAL EQUIPMENT
(Transparency)

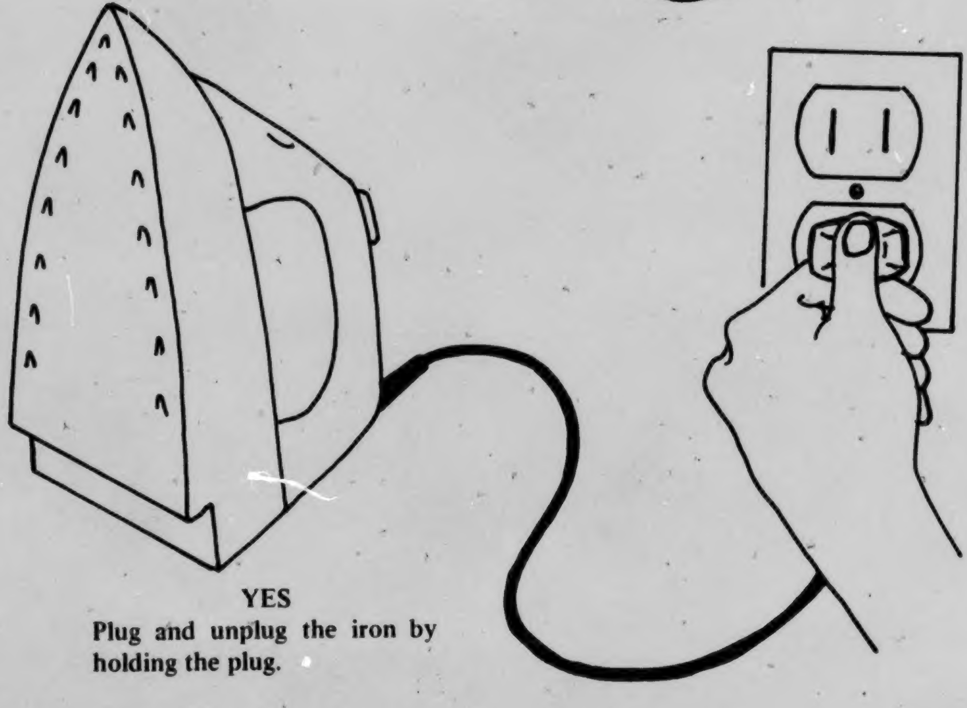




USING PRESSING EQUIPMENT SAFELY
(Transparency)

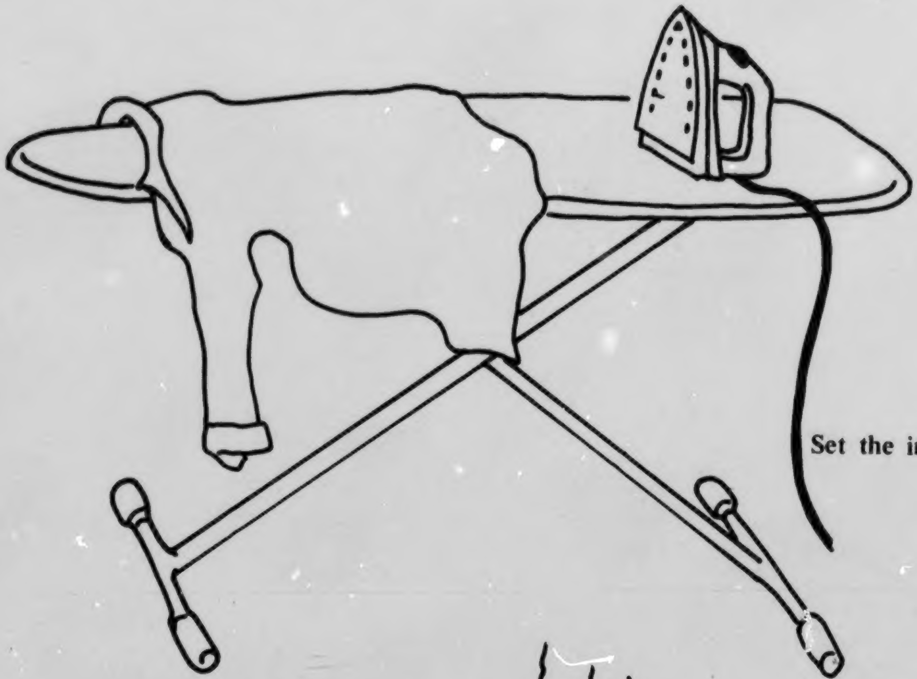


NO
NEVER unplug the cord by pulling the cord.

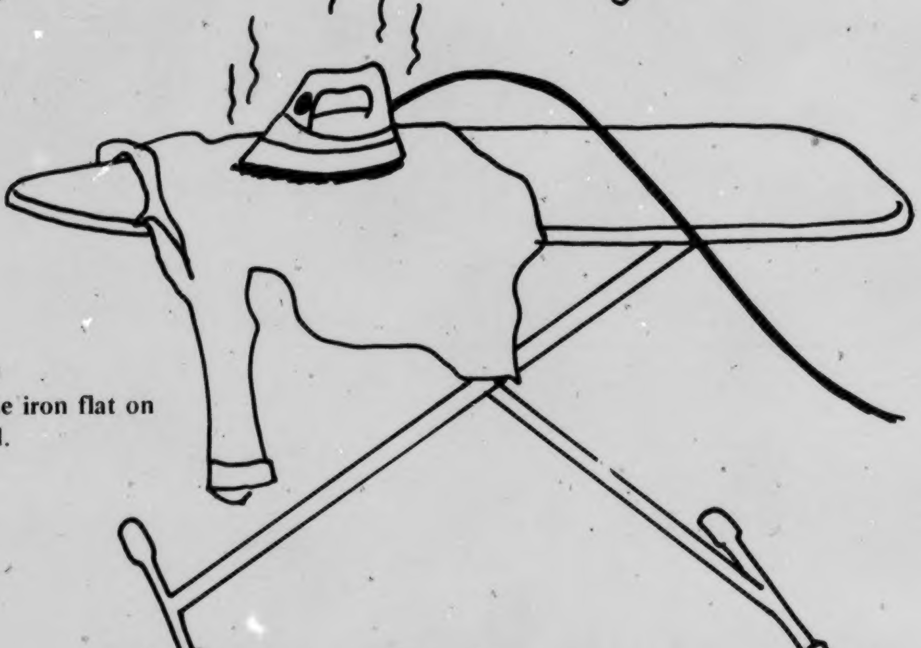


YES
Plug and unplug the iron by holding the plug.

USING PRESSING EQUIPMENT SAFELY
(Transparency)

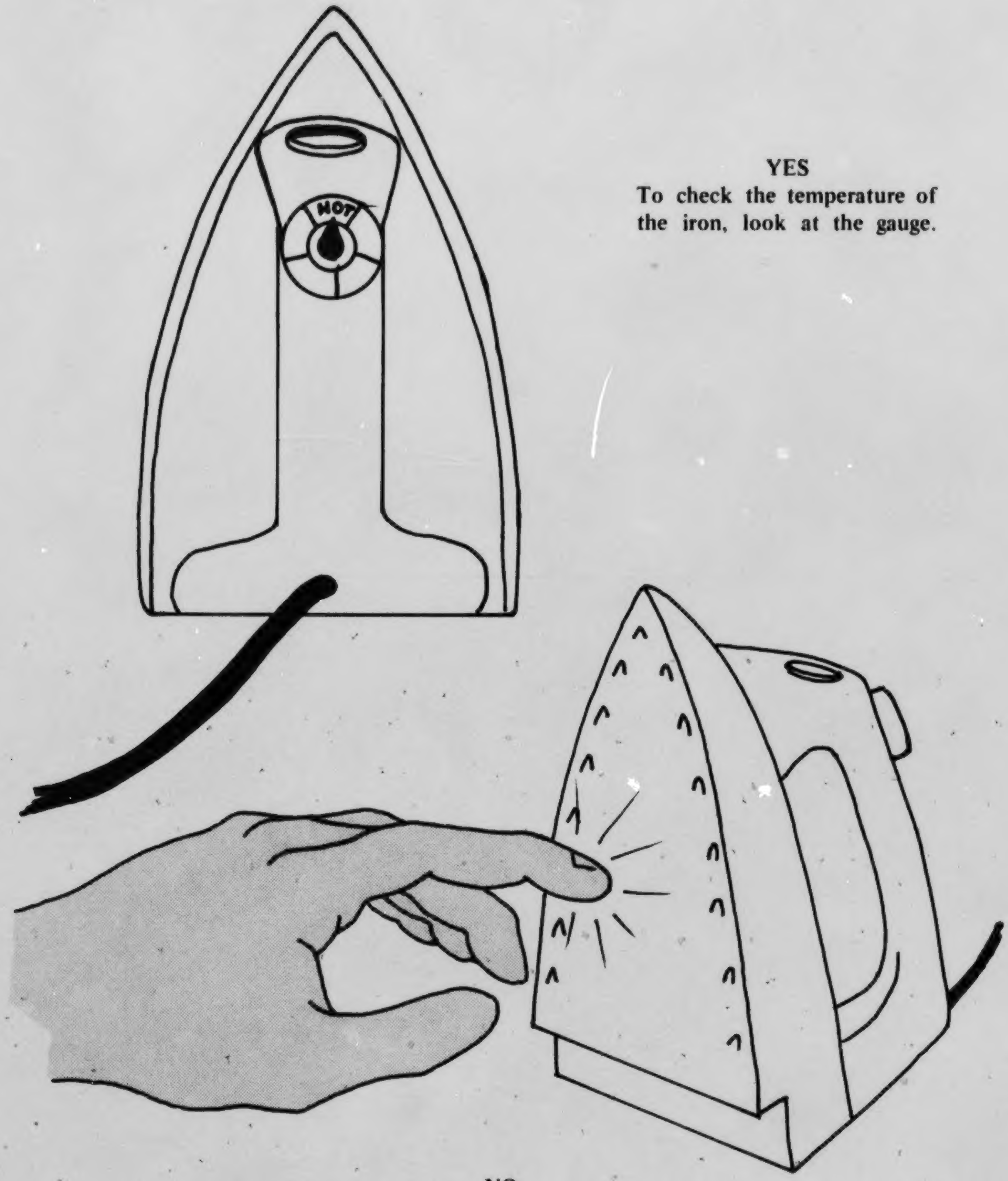


YES
Set the iron on the heel rest.



NO
NEVER leave the iron flat on the ironing board.

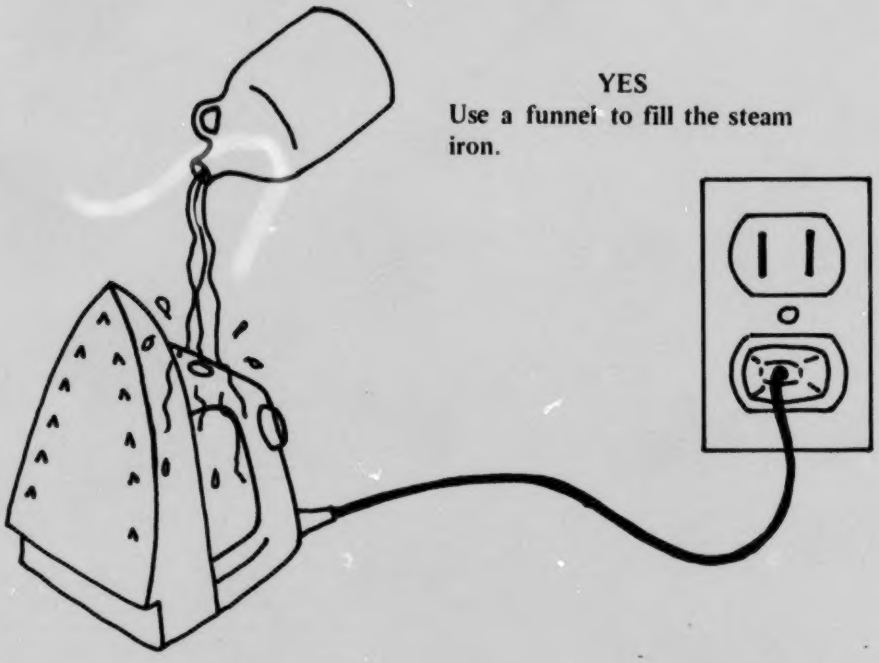
USING PRESSING EQUIPMENT SAFELY
(Transparency)



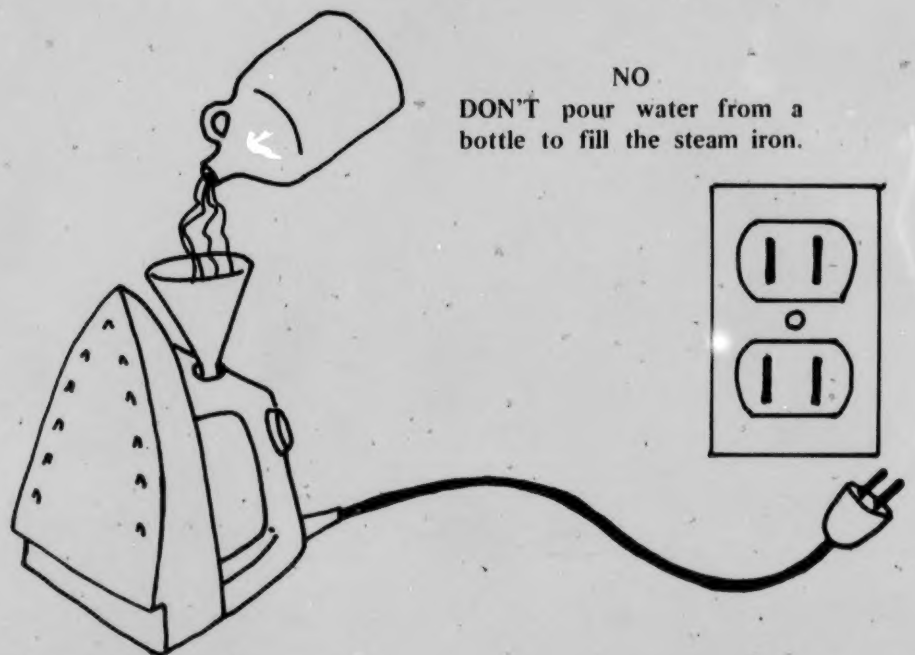
YES
To check the temperature of the iron, look at the gauge.

NO
DO NOT touch the sole plate.

USING PRESSING EQUIPMENT SAFELY
(Transparency)



YES
Use a funnel to fill the steam iron.



NO
DON'T pour water from a bottle to fill the steam iron.

SEWING MACHINE SAFETY GAME
(Teacher Information Sheet)

To Prepare Game:

1. Enlarge board illustrated on p. 193 on a large piece of poster board. Letter the spaces indicated.
2. Using large type or hand printing, make draw cards. Place one statement about sewing machine safety on each card. Indicate the number of spaces to be moved forward or back following the statement.
3. Collect large colorful buttons for use as markers–one for each player.

To Play: (2-6 players)

1. Each player chooses a button marker.
2. To determine which player goes first, each player draws a card from the draw pile. The player who draws the card permitting the most forward moves goes first. In case of a tie, the tied players draw again.
3. Shuffle the cards in the draw pile.
4. Player 1 places his/her button at the START, draws a card, reads the statement aloud (or lets the teacher read it) and moves forward the number of spaces indicated. If the card says "go back" the player remains at the start until her or his next turn.
5. Place the statements drawn in a separate discard pile. Shuffle to reform draw pile when needed.
6. The player to Player 1's right has the second turn. Continue play around the circle until all players reach the finish or until a set time limit is up.
7. If a player's last count forward or back causes him or her to land on a space lettered "go ahead" or "go back," the player must move her or his marker ahead or back as indicated.

[NOTE TO TEACHER: Emphasize that markers are only moved forward when safety rules are observed. Markers move back when safety rules are not observed. Each player who reaches the winner's square has done so by observing safety rules. All sewers who observe safety rules are winners!]

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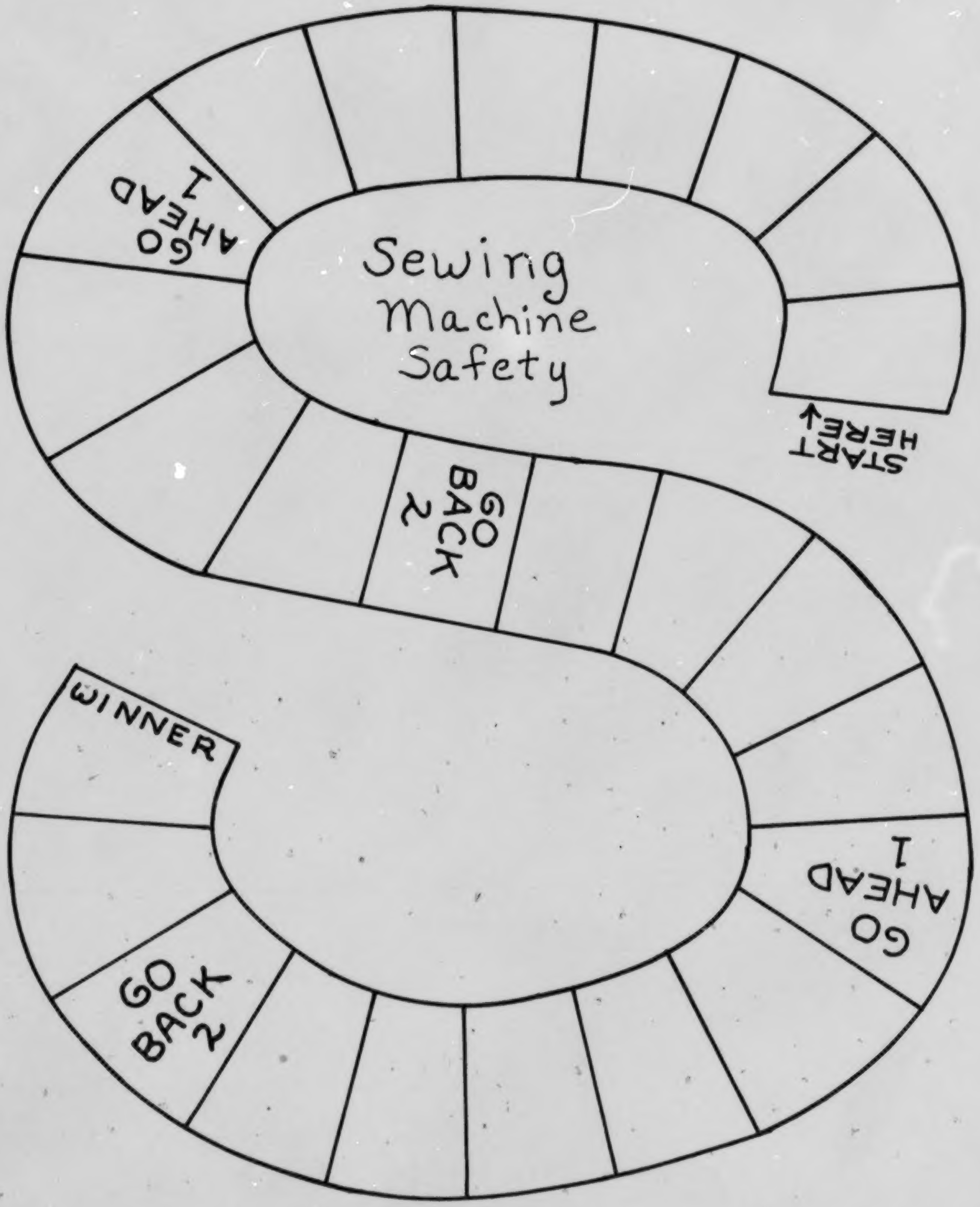
SEWING MACHINE SAFETY GAME
(Gameboard)



SEWING MACHINE SAFETY GAME
(Safety Statements)

+ You handle scissors carefully. Go ahead 5 spaces.

+ You are careful to keep your hands away from the machine needle. Go ahead 5 spaces.

+ You do not think about anything else while you are sewing. Go ahead 5 spaces.

+ You keep your eyes on your hands as you work. Go ahead 5 spaces.

+ You reported to your teacher that you scratched your finger on the machine needle. Go ahead 5 spaces.

+ You always use good posture at the machine. Go ahead 4 spaces.

+ You set the iron on the heel rest. Go ahead 4 spaces.

+ You unplugged a cord by holding the plug. Go ahead 4 spaces.

+ You told a friend not to remove a safety guard from the sewing machine. Go ahead 4 spaces.

+ You reported that your machine was making a funny sound. Go ahead 4 spaces.

+ You wear simple tailored clothing for sewing. Go ahead 4 spaces.

+ You kept your work area free of clutter. Go ahead 3 spaces.

+ You took your feet off the treadle when threading the machine. Go ahead 3 spaces.

+ You took your feet off the treadle when replacing the needle. Go ahead 3 spaces.

+ You turned the motor off while cleaning the machine. Go ahead 3 spaces.

+ You sit straight with your back straight and head up when sewing. Go ahead 3 spaces.

+ You turned off the machine motor when you left for a break. Go ahead 3 spaces.

+ You keep the floor around your machine clear and clean. Go ahead 3 spaces.

+ You sit well back on the seat of your chair with *your* back against the back of the chair. Go ahead 3 spaces.

+ You put pins in a pin cushion. Go ahead 2 spaces.

+ When you sew for a long time, you take short breaks to relax. Go ahead 2 spaces.

+ You keep scissors and other sharp objects off the sewing machine. Go ahead 2 spaces.

+ You keep your hands clean while sewing. Go ahead 2 spaces.

+ When you spilled oil on the floor, you stopped to clean it up right away. Go ahead 2 spaces.

+ You tied your long hair back when sewing at the machine. Go ahead 2 spaces.

+ You were careful *not* to spill oil on the floor. Go ahead 1 space.

+ You raised the needle before placing the bobbin case in the machine. Go ahead 1 space.

+ You used both hands to raise the head of the machine. Go ahead 1 space.

+ You replaced the light bulb on your machine when it burned out. Go ahead 1 space.

+ You closed the bobbin cover before using the machine. Go ahead 1 space.

– You held pins in your mouth. Go back 1 space.

– You unplugged the machine by holding onto the cord. Go back 1 space.

– You dropped pins on the floor. Go back 1 space.

– You talked to a classmate while sewing. Go back 1 space.

– You started the machine by turning the balance wheel. Go back 1 space.

– You pulled the material through the machine. Go back 2 spaces.

– You wore a shirt with long, loose sleeves while sewing. Go back 2 spaces.

– You wore loose, dangling jewelry while sewing. Go back 2 spaces.

– You left scissors laying around with the blades open. Go back 2 spaces.

– You left the iron with the sole plate on the fabric. Go back 2 spaces.

– You tried to use a machine you had not been trained to use. Go back 3 spaces.

– You slid scissors across the table to a friend. Go back 3 spaces.

– You tried to adjust the tension on your machine, but did not know how. Go back 3 spaces.

– You handed scissors to a friend with the pointed end towards your friend. Go back 3 spaces.

– You threw a seam ripper to a friend. Go back 3 spaces.

BASIC SEWING SKILLS

Hand Stitching

COMPETENCY: Ability to safely perform basic sewing skills.

SUB-COMPETENCIES: Ability to select appropriate hand stitches.

Ability to make basic hand stitches.

WORDS TO KNOW:
- hand stitching
- basting stitch
- slipstitch
- vertical hemming stitch
- catchstitch

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Identify the basic types of hand stitching (C-K)	Look at labeled samples of hand stitches as they are passed around the room. [NOTE TO TEACHER: Refer to pp. 202-204 for illustrations of basic hand stitches.] What does the sample of the basting stitch look like? How does it differ from the catchstitch? How does the vertical hemming stitch differ from the slipstitch?
	View transparencies showing hand stitches. Name each stitch as the teacher covers its name on the transparency. (See pp. 202-204.)
	Match the name of each hand stitch to the picture of the stitch on a worksheet. (See p. 205.)
Observe where the hand stitches are used (P-P)	Put the puzzle pieces together, matching the correct picture of the hand stitch to the part of the garment on which it is used. [NOTE TO TEACHER: Cut out the puzzle pieces on pp. 206-213 and glue them on poster board. Cut around the shapes.]
Cite the equipment used in hand stitching (C-K)	Help your teacher make a small bulletin board titled, "Tools for Hand Stitching." Include tools such as scissors, needles, and thread. [NOTE TO TEACHER: To make bulletin board, use actual tools used for hand stitching or pictures cut out of magazines.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Play a matching game to learn to identify the tools used in hand stitching. Divide into groups of two or three players. Shuffle cards and place them face down on the table in four rows with four cards in each row. The first player turns two cards over trying to make a pair. If a matching pair is selected, the player places the matching pair aside and continues to play. If the cards do not match, they are turned face down and it is the next player's turn. Players continue to take turns until all the cards are paired. The player with the most pairs wins. [NOTE TO TEACHER: Construct cards for matching game by making four copies of the patterns on p. 214. Cut apart and place pictures on index cards, construction paper, or lightweight cardboard.]
Cite the steps in threading a needed (C-K)	Watch as your teacher shows you how to thread and use a needle. Find each step on a handout as it is demonstrated. (See pp. 215-217.) [NOTE TO TEACHER: Emphasize safety in using scissors and needles.]
Practice threading a needle for hand stitching (P-GR)	Thread a needle following the directions given by the teacher. [NOTE TO TEACHER: Additional information on threading a needle is on p. 215. Students with partial vision will find it helpful to practice hand stitching with a large needle and heavy thread.]
Practice making a knot in the thread (P-GR)	Make a knot in the thread. (See p. 216.) [NOTE TO TEACHER: For student with one limb or limited use of hands, demonstrate how to make a knot by using one hand holding the spool of thread stationary between two objects or between the knees. Begin making knots with rug yarn and then progress to regular yarn, string, and finally, thread.]
	Place the thimble on middle finger of sewing hand and practice using the needle, thread, and thimble on Sewing Cards. [NOTE TO TEACHER: Make at least one card for each student. Cards can be traded when one is completed. Cut out the shapes and glue them to posterboard. (See pp. 218-220.) Make holes with a hole punch. Sewing cards can also be purchased in various sizes. Additional information on using a thimble is on p. 216.]
Identify the procedure used in making the basting stitch (C-K)	Watch as your teacher shows how to make a basting stitch. What does a basting stitch do? When would a basting stitch be used? [NOTE TO TEACHER: Pin fabric between two padded bricks to make a raised sewing surface that will be easier to use for students with limited arm use. See p. 221.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Look at fabric samples showing each step that is taken in making a basting stitch. Where does the needle go into the fabric on the first step? Where do you place the needle for the second step? How does the stitching look when it is completed? [NOTE TO TEACHER: Construct fabric samples illustrating each step of the procedure for making a basting stitch. See pp. 222-223 for directions for making the samples.]
Practice making basting stitches (P-GR)	Follow the steps for making basting stitches on fabric samples as your teacher shows you each step. How long are your stitches? How far apart are your stitches? [NOTE TO TEACHER: Students with the limited use of one hand will find it helpful to use a clamp device to hold the fabric when they are hand stitching.]
	Practice making basting stitches on fabric samples following marked stitching lines. Check to see that your stitches are close to the stitching lines.
	Practice stitching together two fabric samples using a basting stitch. Have your teacher check your work.
Use basting stitches (P-M)	Make basting stitches on garment hems. Why would some hems need to be basted in place before they are hem stitched? [NOTE TO TEACHER: Old garments may be purchased at used clothing stores or donated by the community. This would allow students to practice making the basic hand stitches on garments. Stitches can be removed so that students can repeat the experience.]
Identify the procedure used in making slipstitches (C-K)	Watch as your teacher shows how to make slipstitches. What does a slipstitch look like? On what part of a garment would slipstitches be used?
	Look at fabric samples showing each step in making slipstitches. [NOTE TO TEACHER: Construct fabric samples illustrating each step of the procedure for making a slipstitch. See p. 224 for directions for making the samples. Block stitching on white fabric will be helpful to students with limited vision.] What direction do the stitches go? Why must the edge of a hem be folded before it is sewn with slipstitches?
Practice making slipstitches (P-GR)	Follow steps for making slipstitches on fabric samples as your teacher shows you each step. Check to make sure that your stitches are secure.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Practice making slipstitches on fabric samples. Have your teacher check your work. [NOTE TO TEACHER: Use a variety of fabrics when making the samples so students can see the result of the slipstitcn on different fabrics.]
Use slipstitches (P-M)	Use a slipstitch to hem a garment.
Identify procedures used in making the vertical hemming stitch (C-K)	Watch as your teacher shows how to make a vertical hemming stitch. What does a vertical hemming stitch do? Where would vertical hemming stitching be used on a garment? What does the vertical hemming stitch look like from the right side of the fabric?
	Look at fabric samples showing each step in making vertical hemming stitches. How large are the vertical hemming stitches? When would a vertical hemming stitch be used on a garment instead of a slipstitch? [NOTE TO TEACHER: Make fabric samples illustrating each step of the procedure for making a vertical hemming stitch. See p. 225 for directions for making the samples.]
Practice making vertical hemming stitches (P-GR)	Follow steps for making vertical hemming stitches as your teacher shows you each step. Check to make sure that your stitches do not show on the right side of the fabric.
	Practice making vertical hemming stitches on fabric samples. Have your teacher check your work. [NOTE TO TEACHER: Use a variety of fabrics when making the samples so students can see the result of the vertical hemming stitch on different fabrics.]
Use the vertical hemming stitch (P-M)	Secure a hem in a garment using vertical hemming stitches.
Identify procedure used in making the catchstitch (C-K)	Watch as your teacher shows how to make a catchstitch. What does the stitch look like? On what part of a garment would the catchstitch be used?
	Look at fabric samples showing the steps taken in making a catchstitch. [NOTE TO TEACHER: Construct fabric samples illustrating each step of the procedure for making a catchstitch. See p. 226 for directions for making the samples.] When would a catchstitch be used instead of a vertical hemming stitch or slipstitch? In what direction are the stitches made?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Practice making catchstitches (P-GR)	Follow the steps for making catchstitches as your teacher shows you each step. Check to make sure that your stitches are spaced evenly. Practice making catchstitches on fabric samples. Have your teacher check your work. [NOTE TO TEACHER: Use a variety of fabrics when making the samples so students can see the result of the catchstitch on different fabrics.]
Use catchstitches (P-M)	Secure a hem or facing in a garment using the catchstitch.
Gain skill in making basic hand stitches (P-M)	Use basic hand stitches in completing various class projects. Work to improve the quality of your hand stitches each time you use them.

WORDS TO KNOW

About Hand Stitching

(Teacher Information Sheet)

hand stitching - to make stitches by hand using a needle, thread, and thimble.

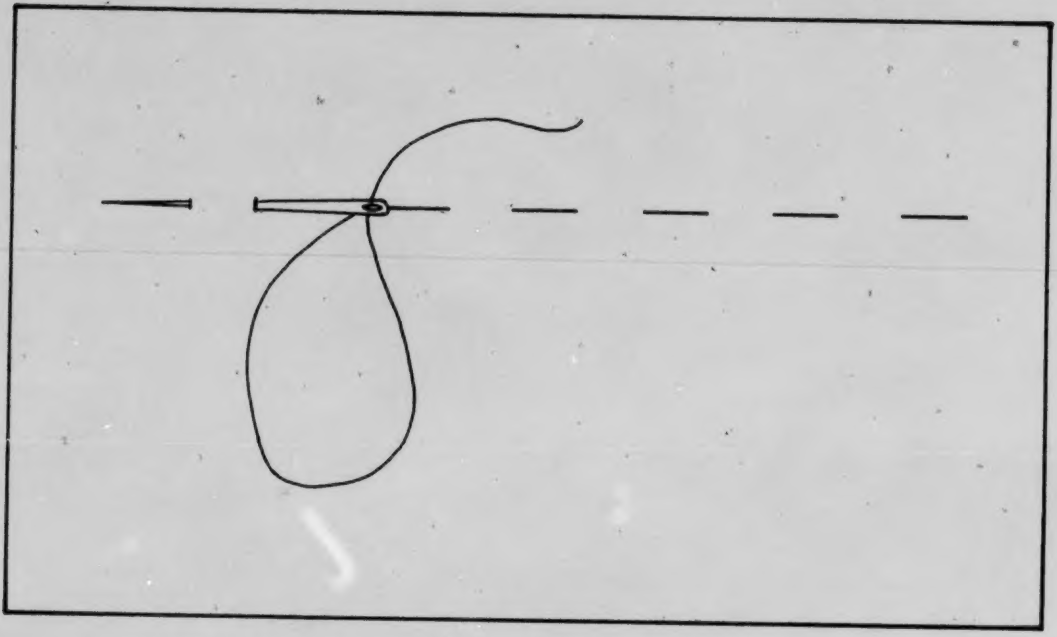
basting stitch - a row of long stitches used to hold fabric together for fitting or sewing.

slipstitch - a hand stitch made under the *raw* edge of a hem or facing. It can hardly be seen.

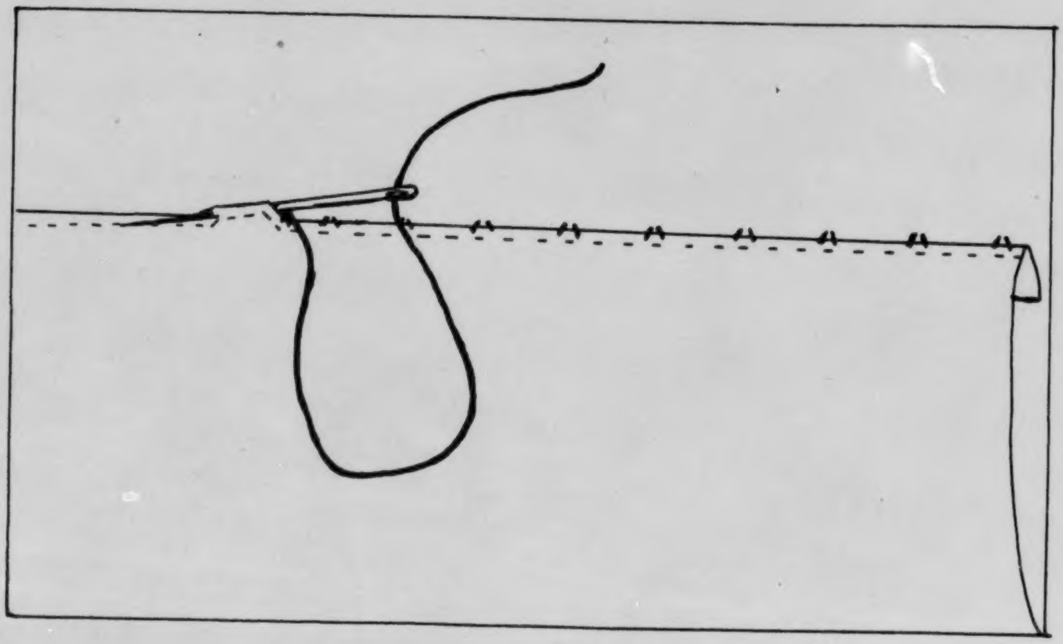
vertical hemming stitch - a durable stitch used on a finished edge.

catchstitch - a hand stitch that looks like an "X." It is used to hold raw edges.

BASTING STITCH



SLIPSTITCH



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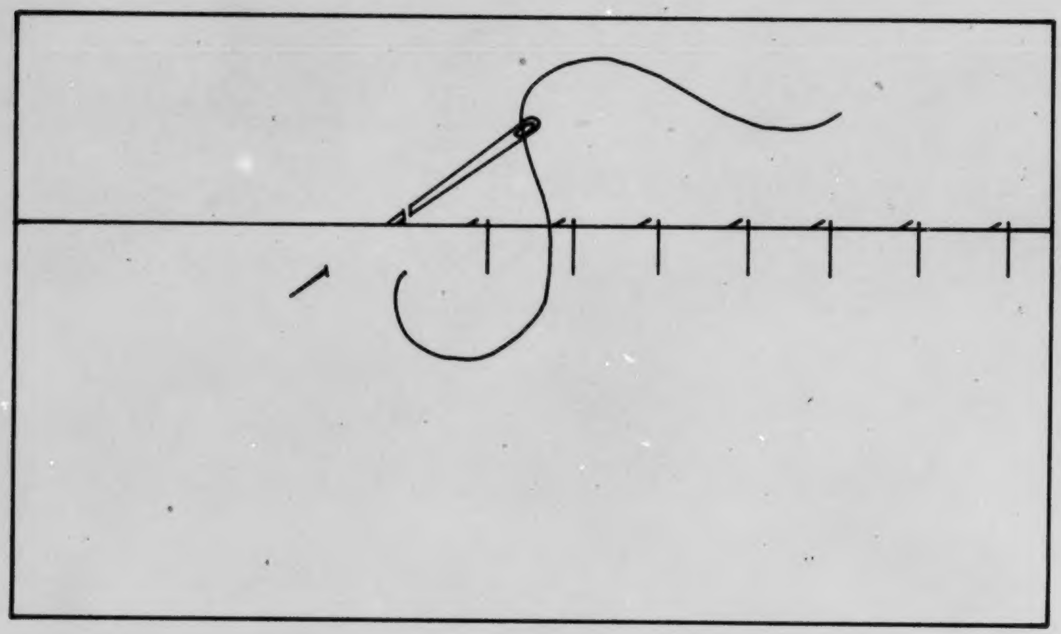
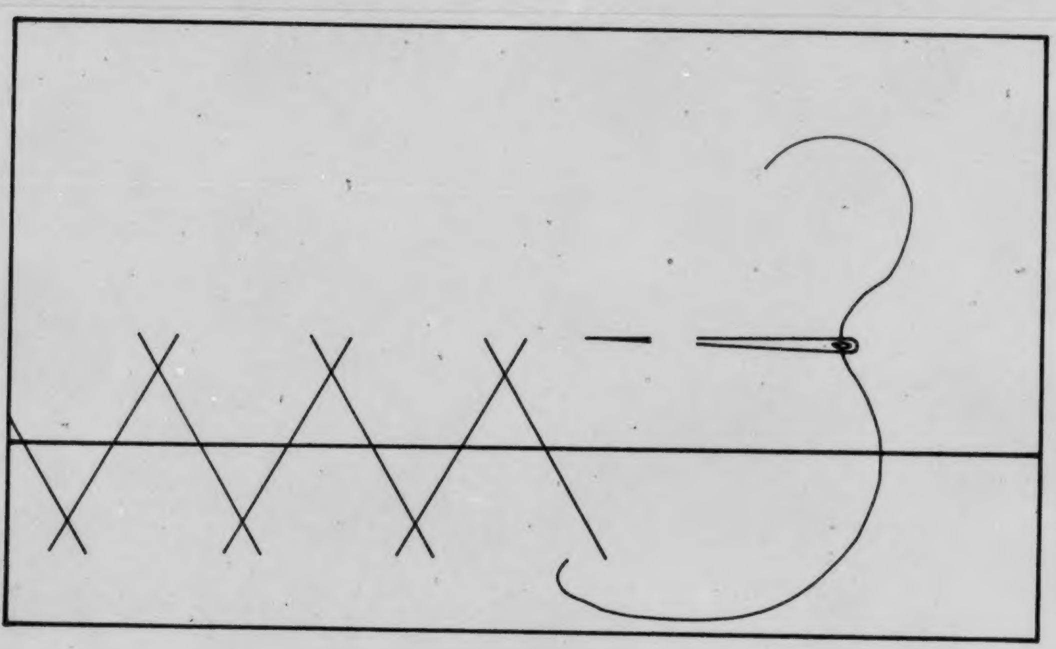
VERTICAL HEMMING STITCH



CATCHSTITCH



HAND STITCHES
(Worksheet)

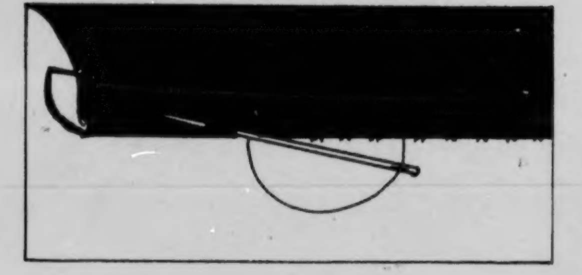
DIRECTIONS: Draw a line from the name of the stitch to the correct picture.

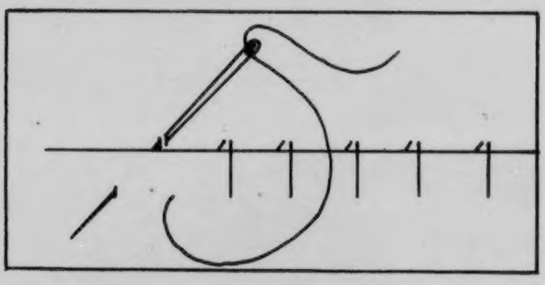
CATCHSTITCH

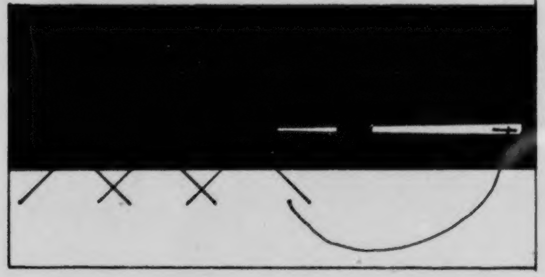
BASTING STITCH

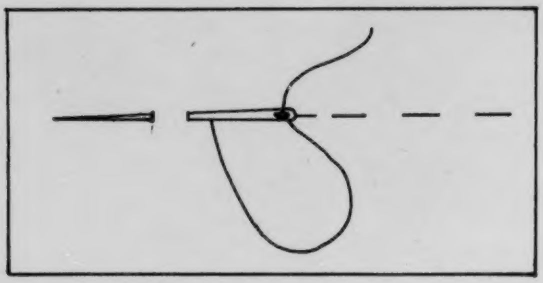
VERTICAL HEMMING STITCH

SLIPSTITCH





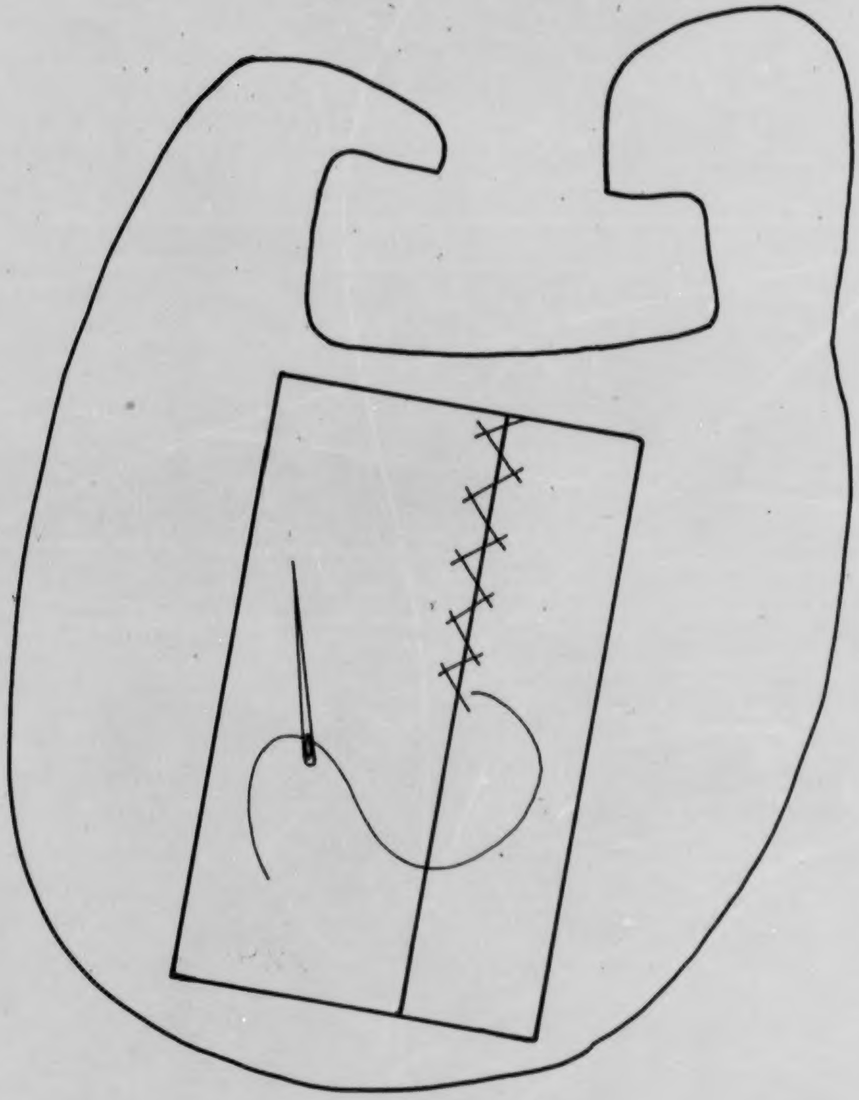




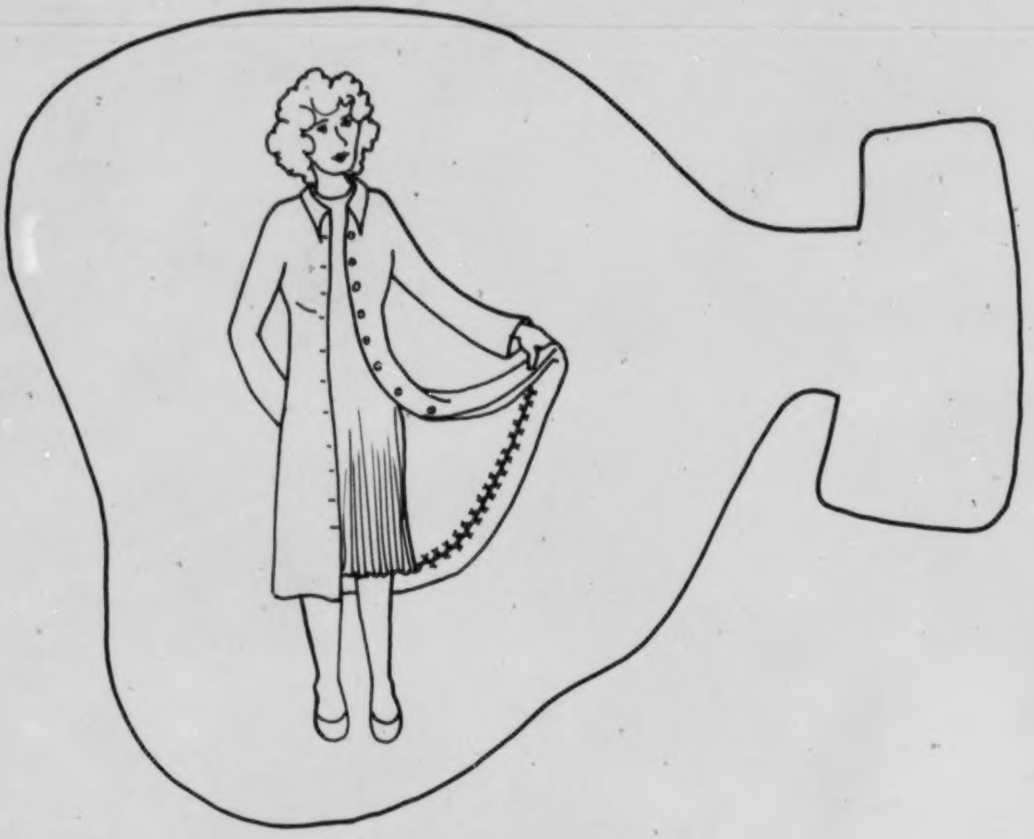
HAND STITCHES
(Puzzle)

DIRECTIONS: Cut out the puzzle pieces on the following pages and paste them on cardboard or construction paper. Put the puzzle pieces together by matching the correct picture of the hand stitch to the part of the garment it is used on.

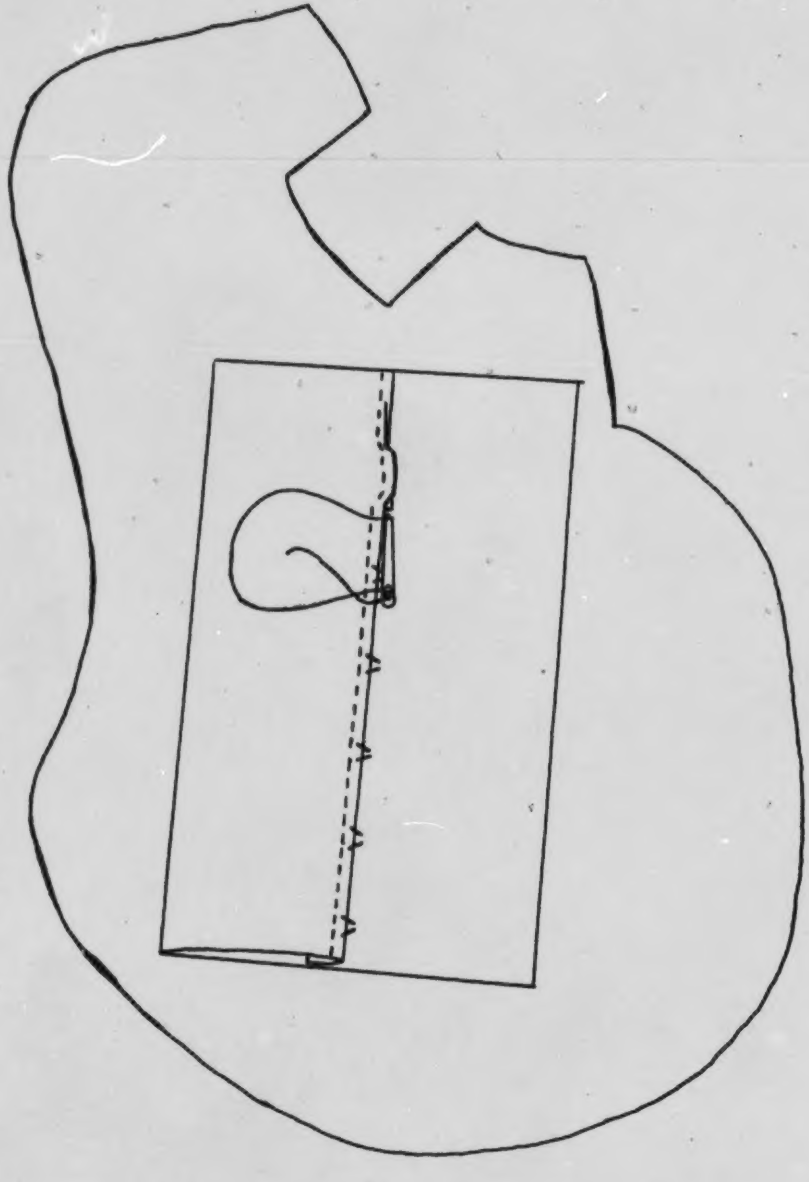
CATCHSTITCH PUZZLE
PART A



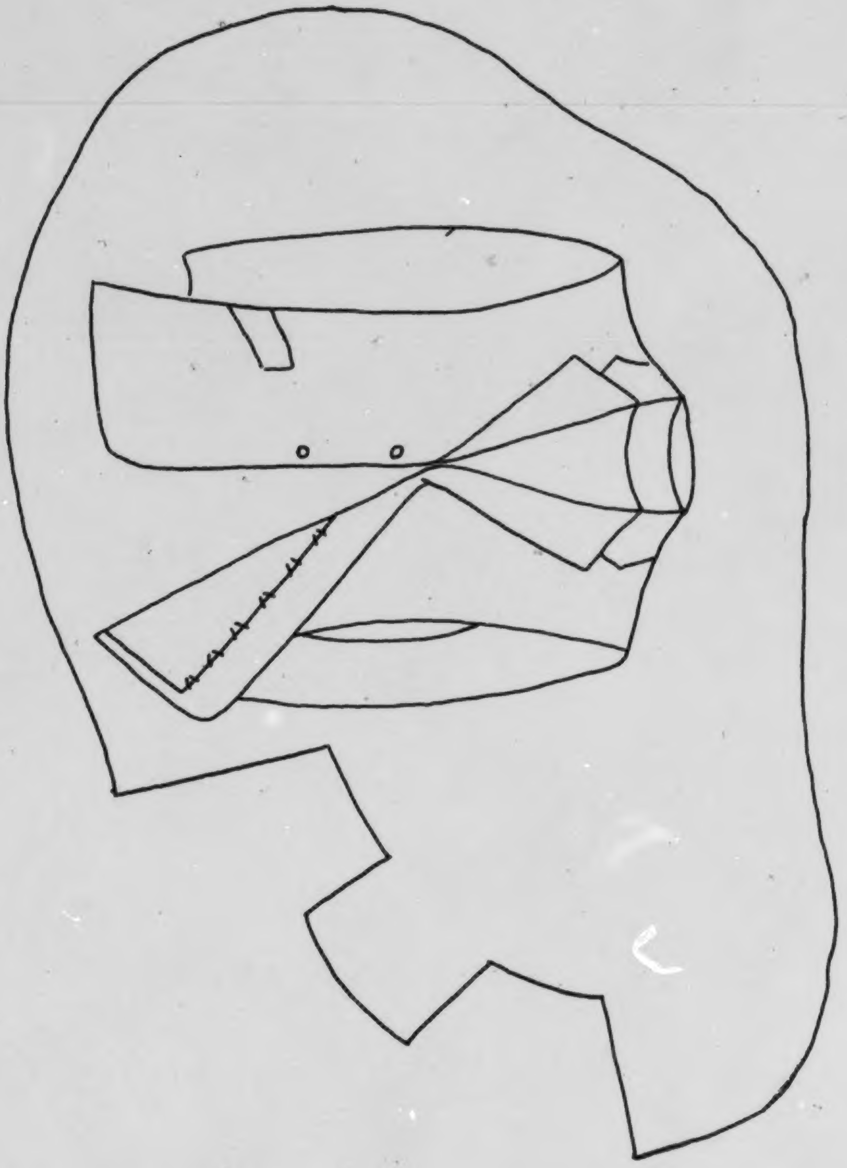
CATCHSTITCH PUZZLE
PART B



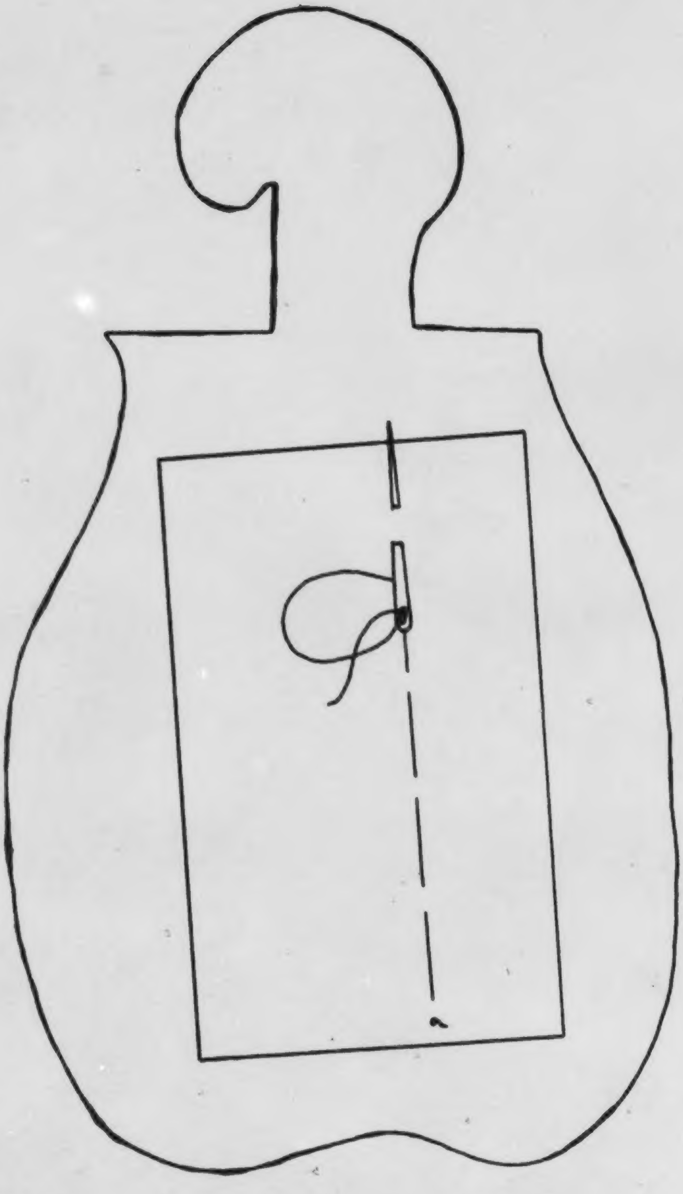
SLIPSTITCH PUZZLE
PART A



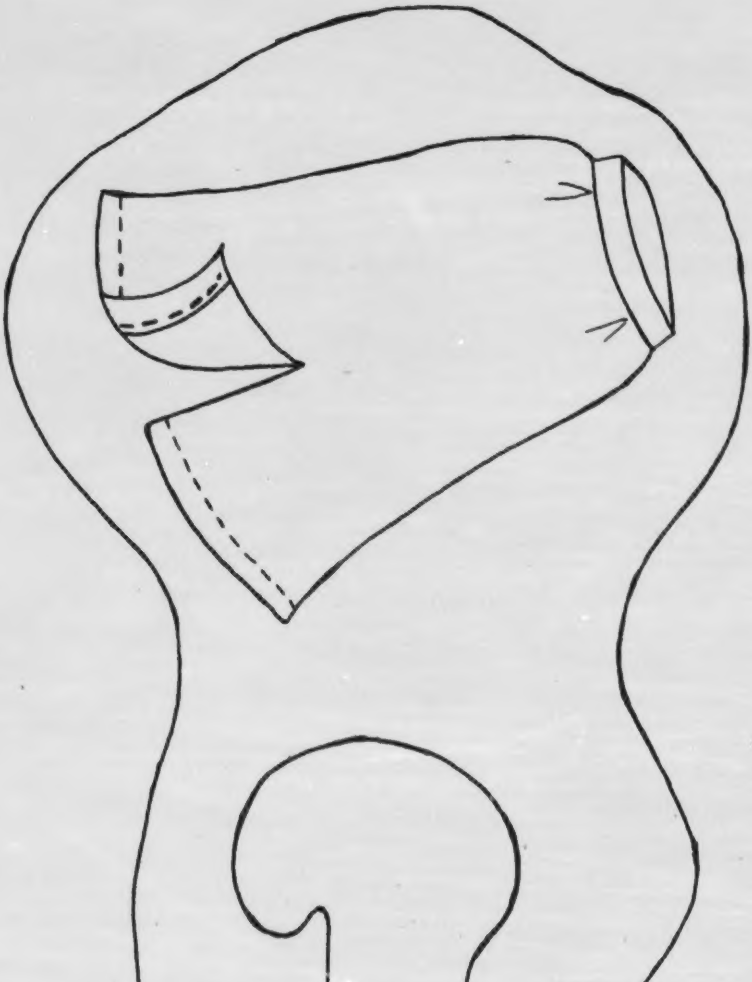
SLIPSTITCH PUZZLE
PART B



BASTING STITCH PUZZLE
PART A



BASTING STITCH PUZZLE
PART B



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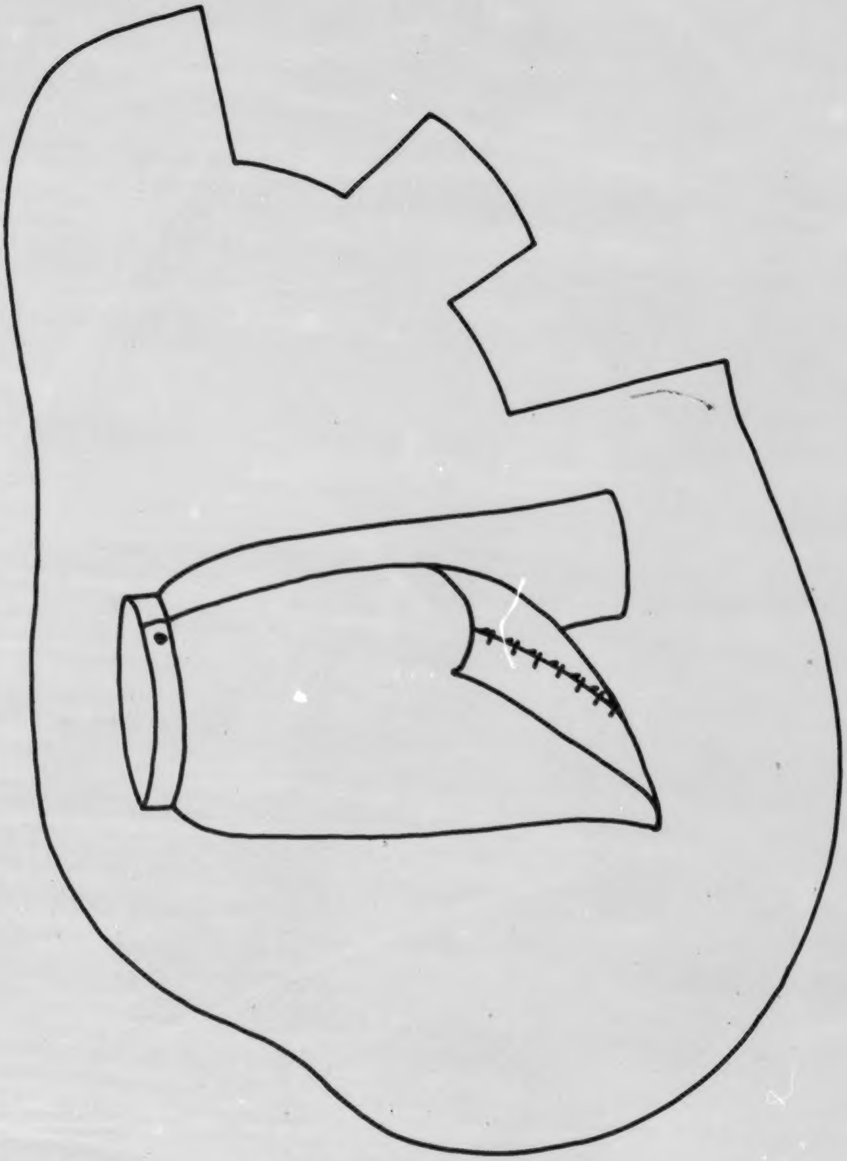
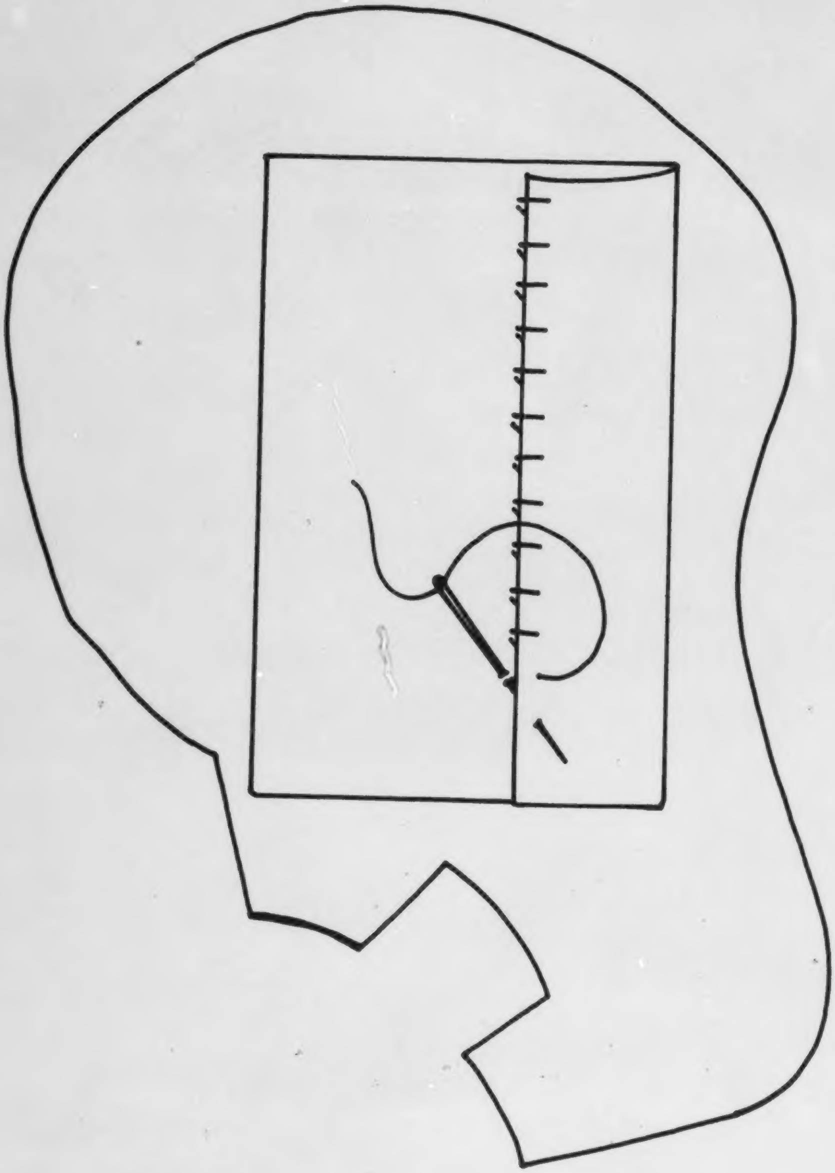
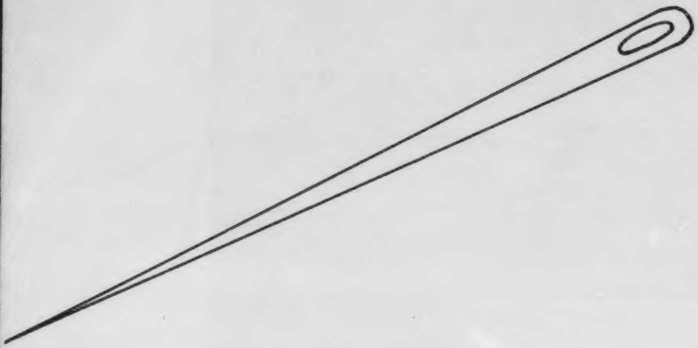
VERTICAL HEMMING STITCH
PART A

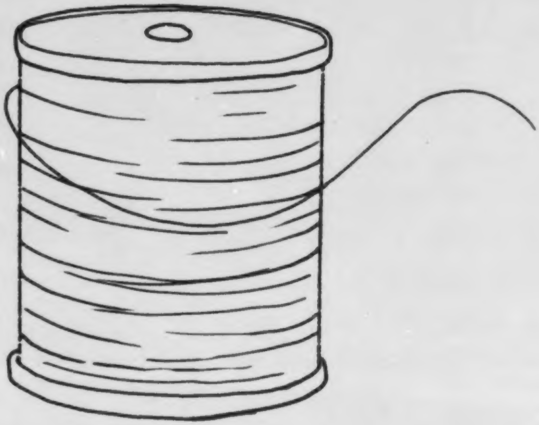


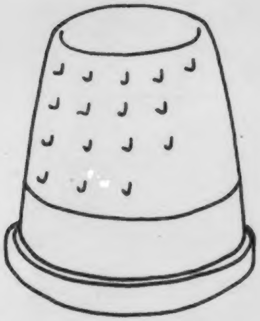
VERTICAL HEMMING STITCH
PART B

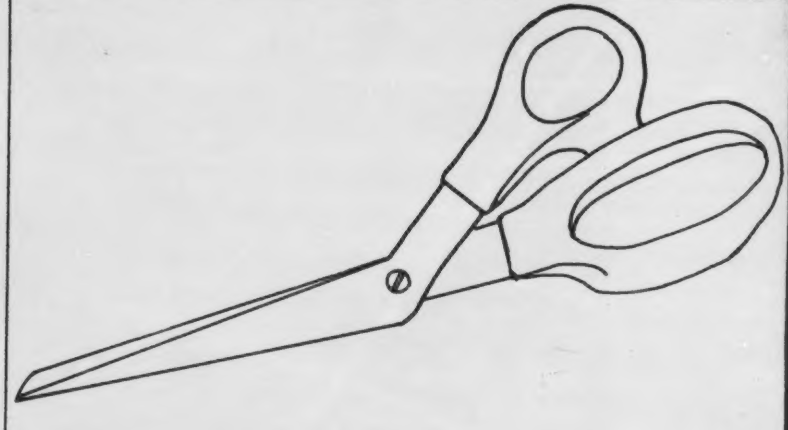


MATCHING GAME CARDS
(Pattern)









HAND STITCHING

Threading a Needle

STEP 1: Wash your hands. Clean your fingernails.

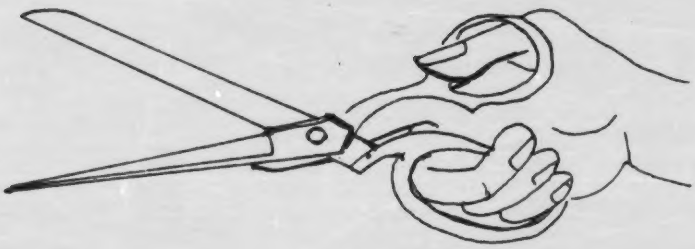
STEP 2: Place the spool of thread on the table in front of you. Loosen the end of the thread from the notch on the end of the spool.

STEP 3: Hold the shears in your hand. [NOTE: These directions are for a right-handed person. Reverse if you are left-handed.]

Place your thumb in the round handle.

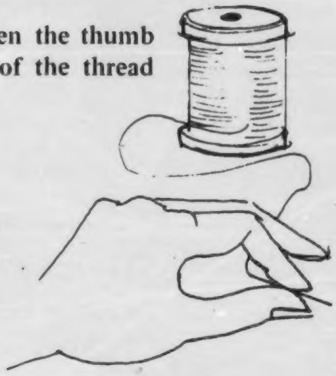
Place your first finger along the blade.

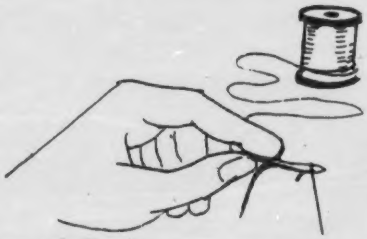
Place your other fingers in the big handle. You may use either two or three fingers.



STEP 4: Clip off the end of the thread at an angle. Use the point of the shears to do this. The angle helps prevent raveling and fraying of the thread. DO NOT break or bite the thread. Moisten the end of the thread.

STEP 5: Hold the end of the thread between the thumb and first finger. Just the very tip of the thread should show.

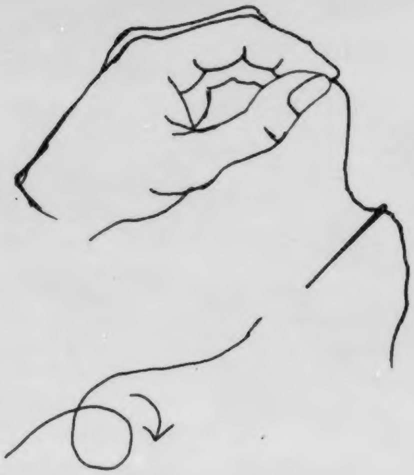




STEP 6: Pick up the needle. Lay the eye of the needle onto the thread. Spread the thumb and finger slightly by straightening the first finger. The thread will go easily through the eye.

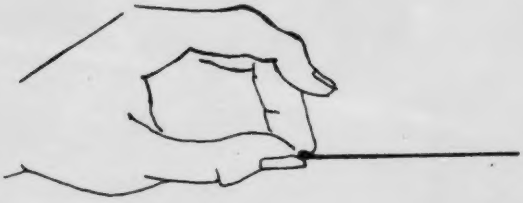
STEP 7: Draw the thread about the length of your arm from the spool. Cut it.

Tying a Knot



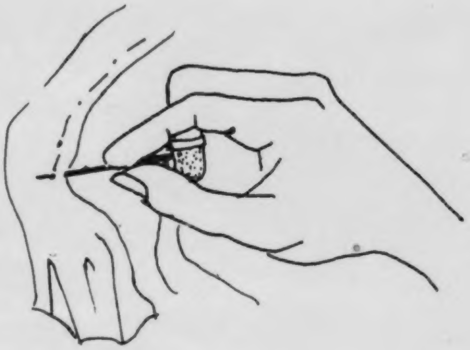
STEP 1: Tie the knot in the end of the thread that came from the spool first. This is the end you put through the eye of the needle. This prevents tangling and twisting of the thread. Hold the end of the thread between your left finger and thumb.

STEP 2: Wrap the thread around your first finger of your left hand. It should meet and cross over the ends of the thread.



STEP 3: Press your thumb against your finger snugly but not tightly. Roll thread off your finger. Hold thread with your middle (second) finger. Pull the thread with your right hand while holding the roll in your left hand. This makes a knot. The knot will be on or near the end of the thread and should be fairly small.

Holding the Needle for Stitching



STEP 1: Hold the needle about the middle between your thumb and first finger. The eye end is between the thumb and index finger. The point is away from the thumb and finger.

STEP 2: Rest the eye end of the needle on the thimble. The thimble is worn on the middle finger.

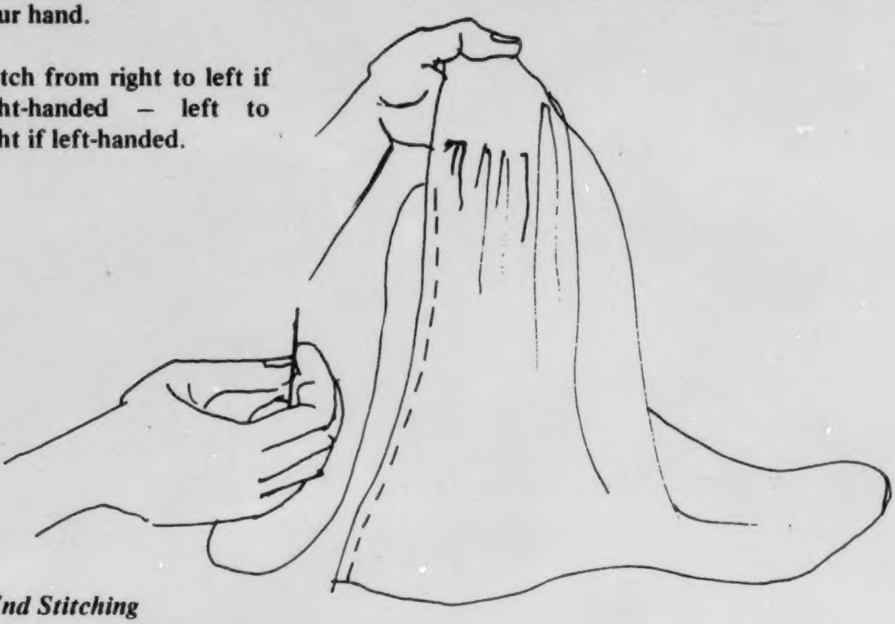
STEP 3: Use the thimble to push the needle through the fabric. The side of the thimble is used for fast work. The end of the thimble is used for slow or thick work.

Holding Fabric to Hand Stitch

STEP 1: Hold the fabric loosely in one hand. Hold the needle and thread in the other hand. Turn the fabric so that the edge you are stitching is nearest you.

STEP 2: Place your thumb on top of the fabric and your fingers under the fabric. Hold it loosely. Let the fabric rest on the table. This prevents its weight from pulling the fabric from your hand.

STEP 3: Stitch from right to left if right-handed – left to right if left-handed.



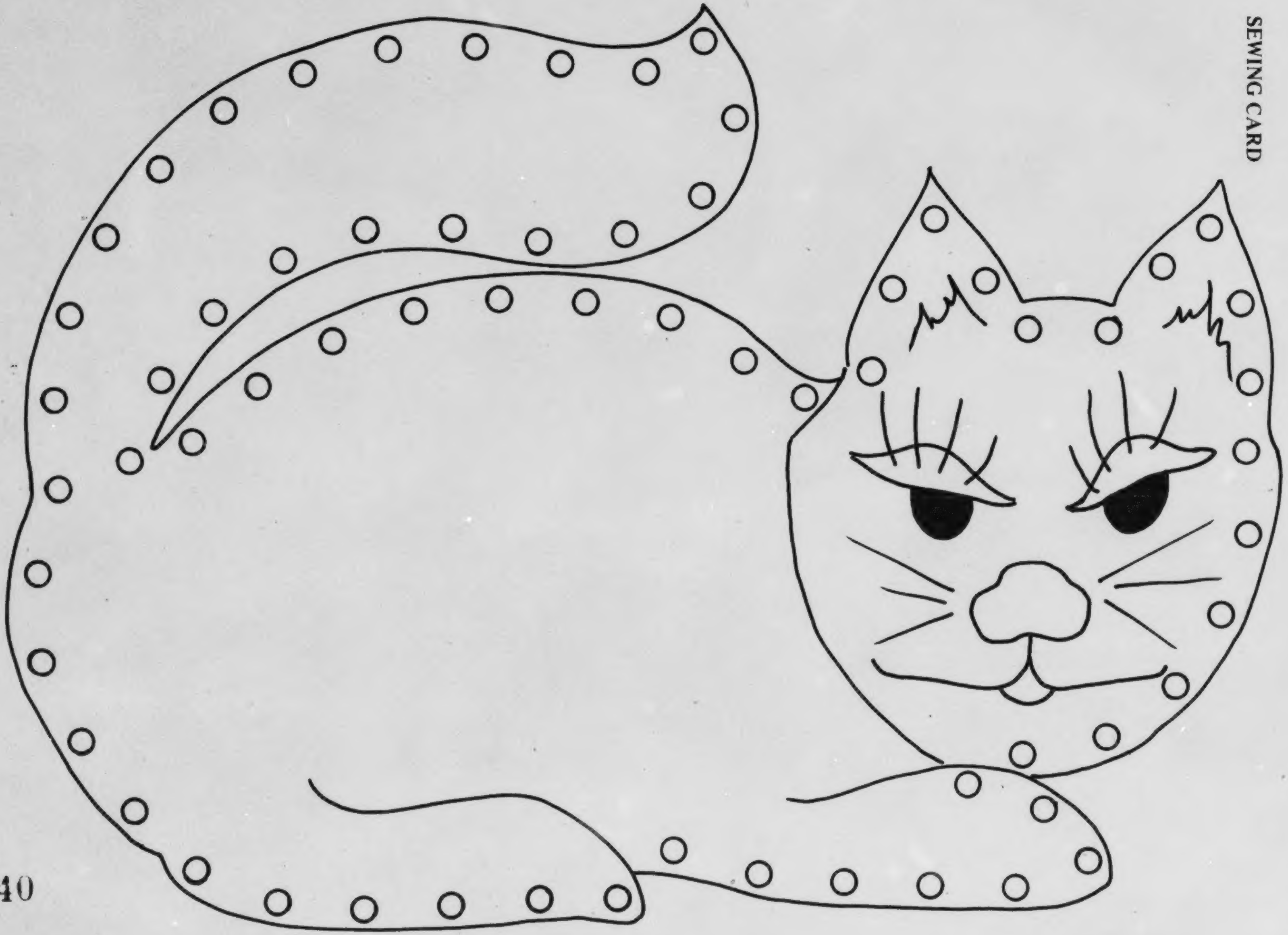
Tying Off to End Stitching

STEP 1: Take a tiny stitch, leaving the needle in the material.

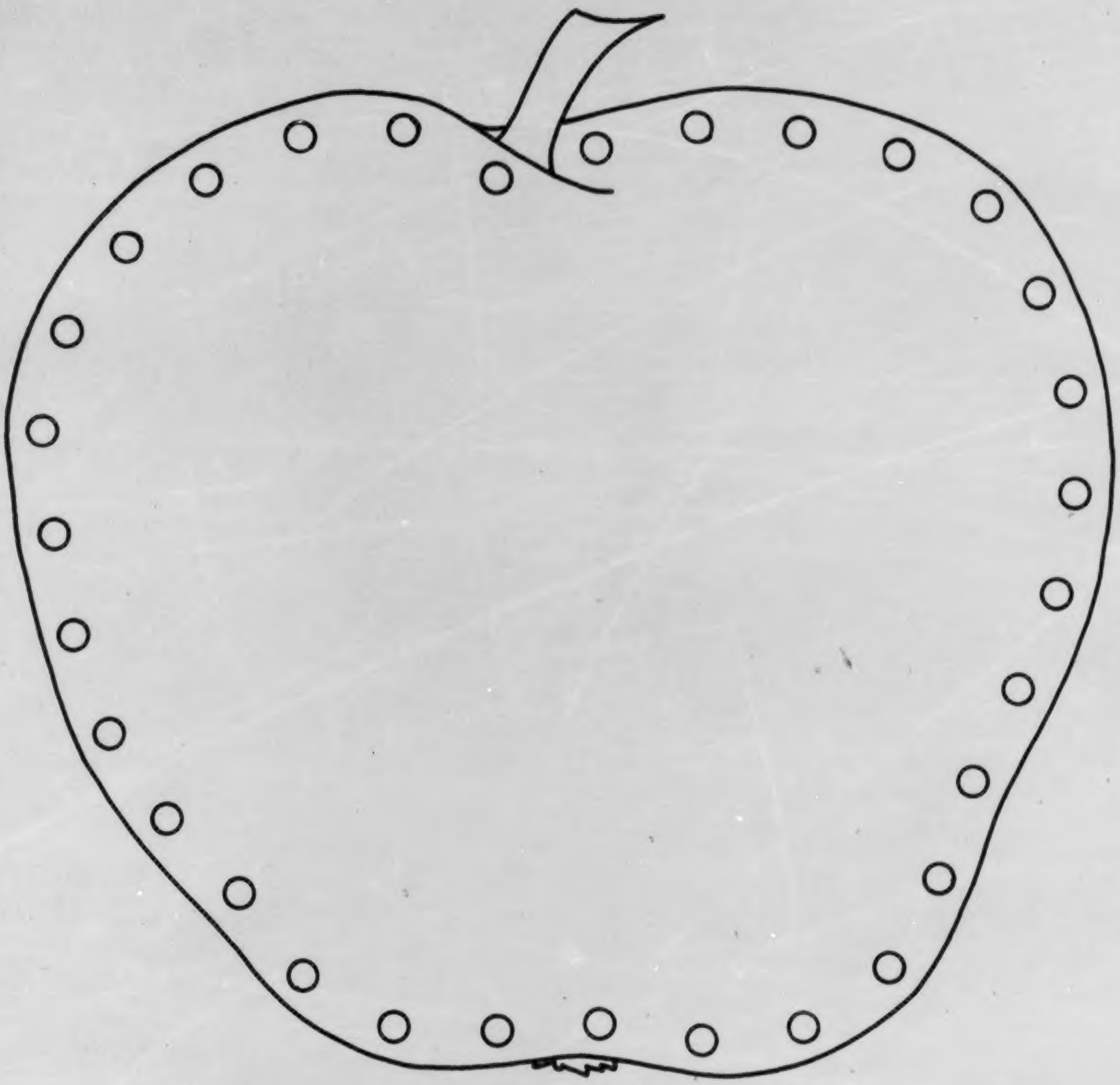
STEP 2: Loop the thread over the end of the needle.

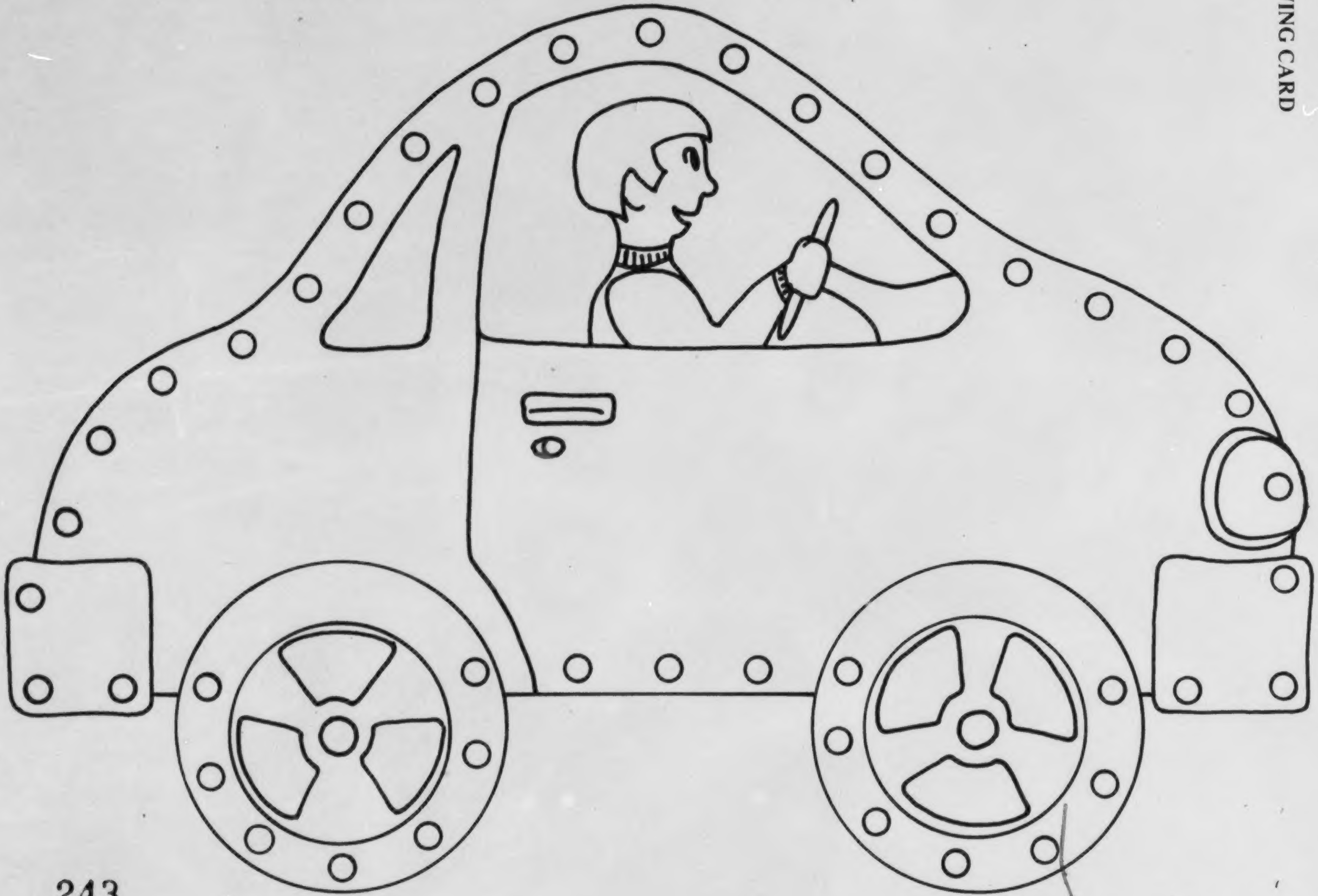
STEP 3: Pull the needle through. Pull the thread tightly.

STEP 4: Clip the thread.


SEWING CARD

SEWING CARD





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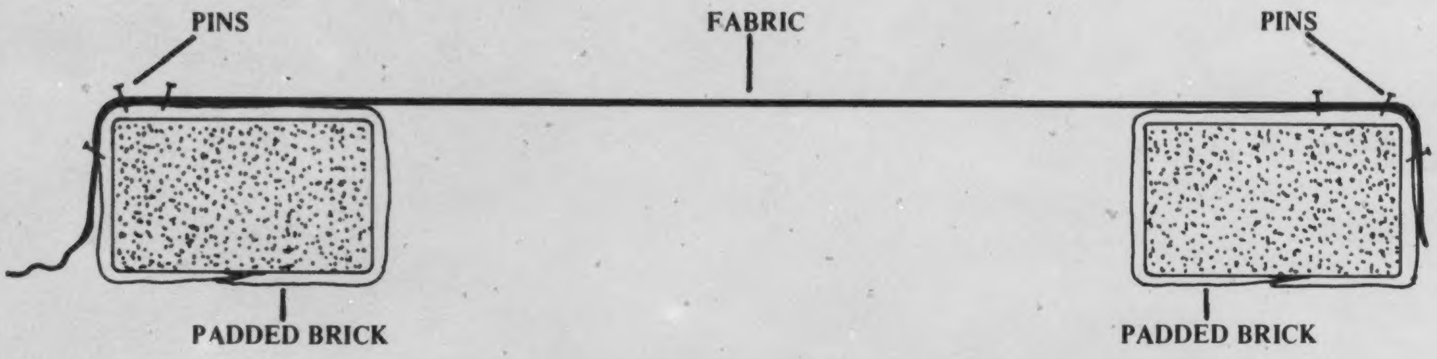
RAISED SEWING SURFACE
(For Students with Limited Arm Use)



STEPS FOR MAKING HAND STITCHES
(Teacher Information Sheet)

DIRECTIONS:

1. Cut out 4-inch squares of fabric for use in constructing step-by-step guides to making hand stitches. Use a different color fabric for each stitch; basting stitch, slipstitch, vertical hemming stitch, and catchstitch.
2. Using contrasting thread, do a sample showing each step in making the stitch as illustrated on pp. 223-226.
3. Display the sample for student use.

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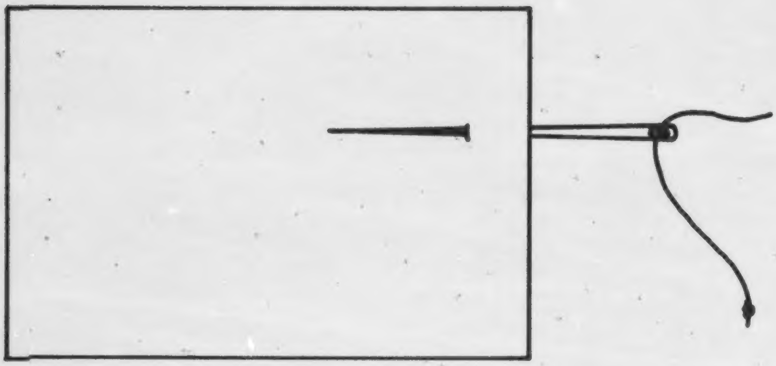
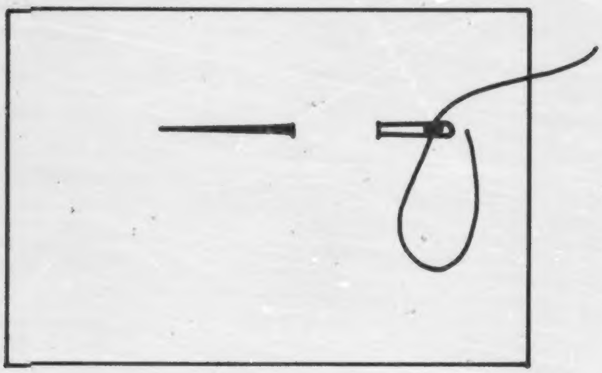
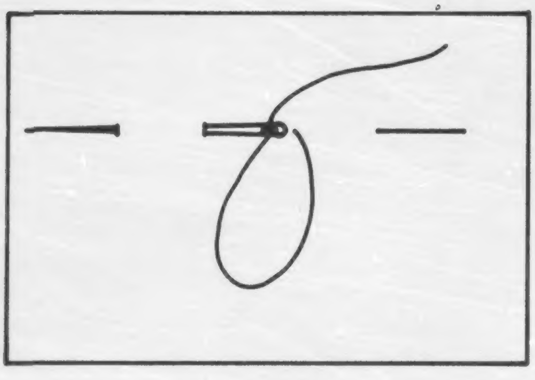
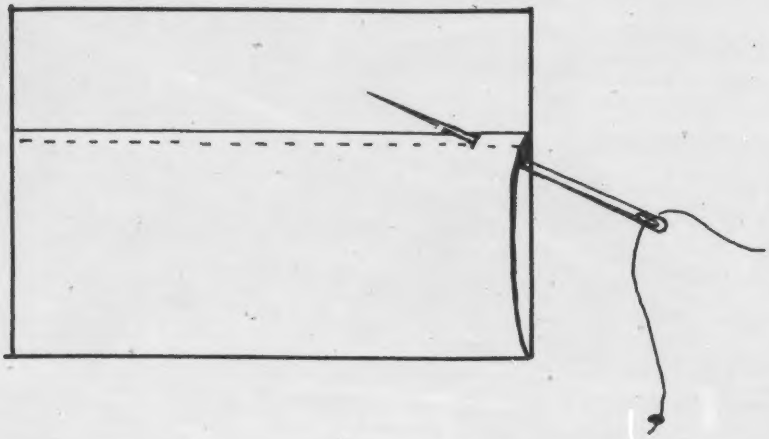
BASTING STITCH

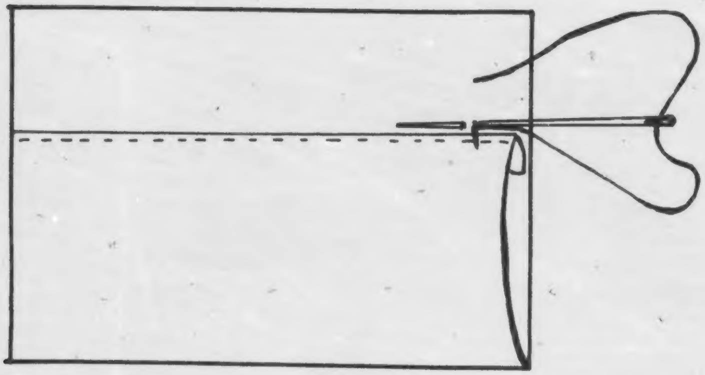


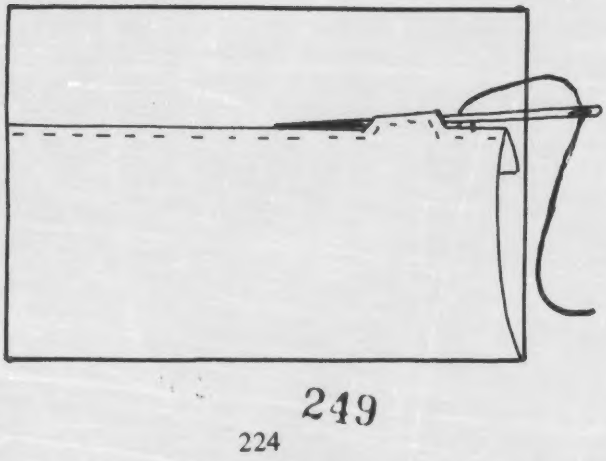




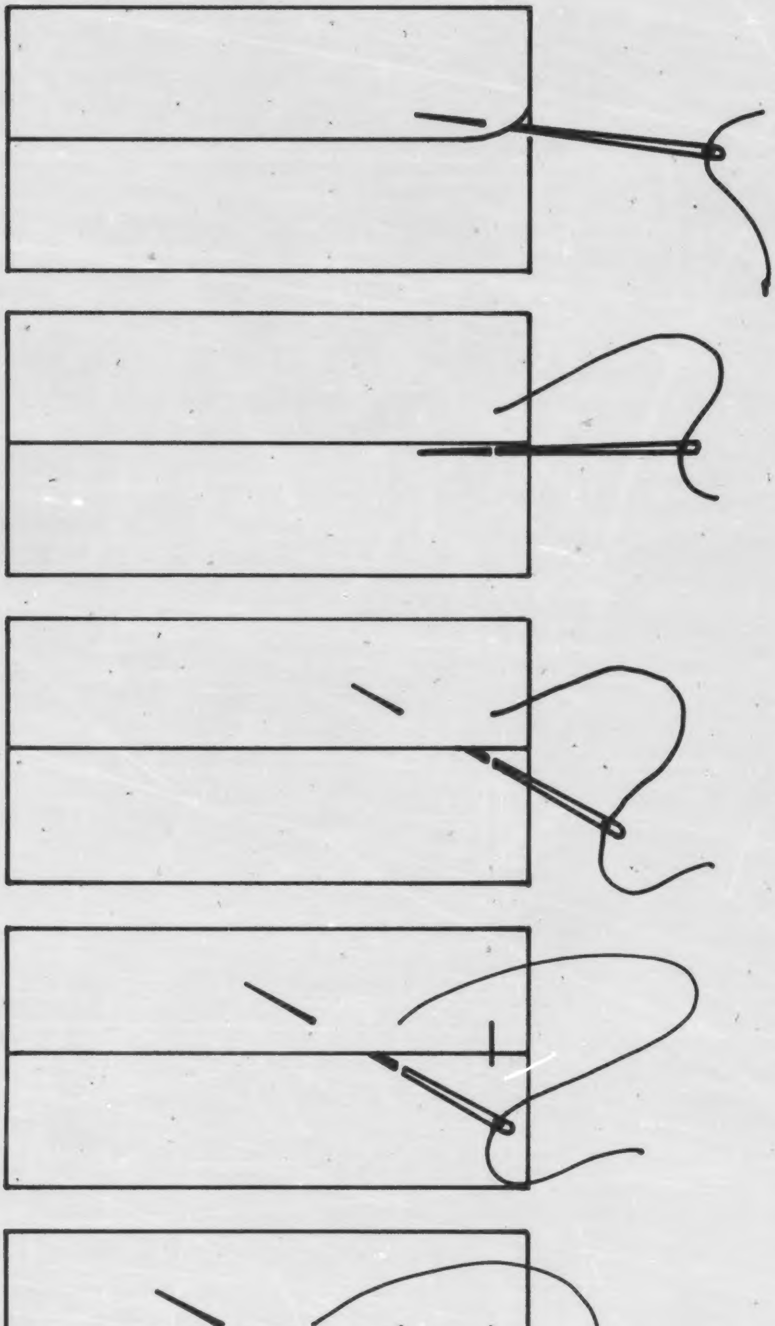
SLIPSTITCH



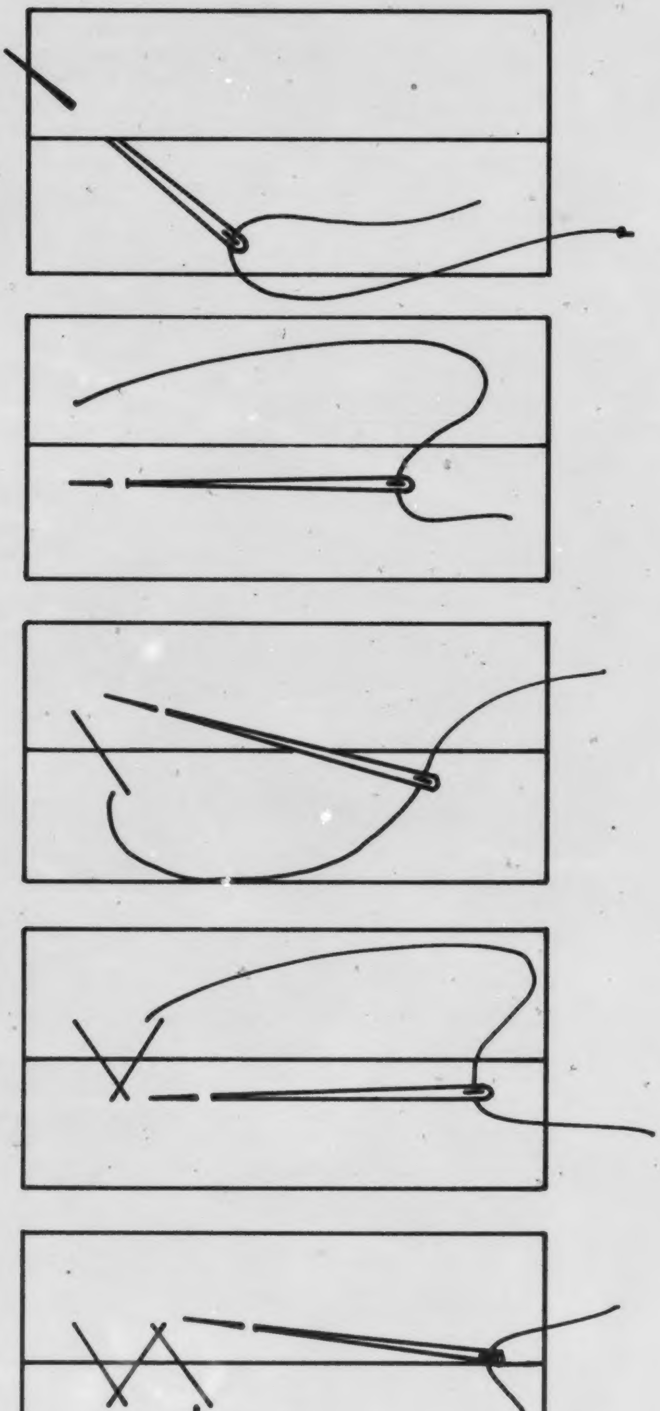




VERTICAL HEMMING STITCH



CATCHSTITCH



BASIC SEWING SKILLS

Domestic Machine Stitching

COMPETENCY: Ability to safely perform basic sewing skills.

SUB-COMPETENCIES: Ability to thread the domestic sewing machine.

Ability to fill a bobbin.

Ability to set the domestic sewing machine for different stitches.

Ability to operate the domestic sewing machine.

Ability to use machine attachments.

WORDS TO KNOW:

- posture
- cabinet
- machine head
- foot control
- knee control
- hand wheel
- presser foot
- presser foot lifter
- spool pin
- thread guides
- take up lever
- needle
- bobbin
- bobbin winder
- bobbin case
- zigzag stitch
- straight stitch
- bobbin cover
- feed dog
- zipper foot
- buttonhole attachment
- sewing machine light
- thread
- threading the machine
- stitch
- pattern selector
- built-in buttonholer

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Accept responsibility for setting up and putting away the domestic sewing machine (A-V)	Take responsibility for setting up the domestic sewing machine when it is needed for sewing. [NOTE TO TEACHER: For information on setting up and taking down the domestic sewing machine refer to p. 121.] Put the domestic sewing machine away each time after using it. [NOTE TO TEACHER: For students with limited use of arms and legs, it would be easier to leave the machine set up and use a dust cover instead.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Identify how to have good posture at the domestic sewing machine (C-K)	Watch as your teacher shows the correct posture when sewing on the domestic sewing machine. [NOTE TO TEACHER: Include information such as: sit firmly on the seat of the chair with your back pressed against the back of the chair; sit with your back straight and head up; don't allow your back to curve; don't rock in the chair; keep all legs of the chair firmly on the floor; and sit close to the machine and line up the center of your body with the sewing machine needle.]
	Identify the picture which shows good posture at the sewing machine. [NOTE TO TEACHER: Take pictures of students using good and poor posture.]
Explain good posture (C-C)	Describe how your back and shoulders look when you have bad posture. How do they look when you use good posture? What is good posture? Why do you need to use good posture when you are sewing on the domestic sewing machine?
	Stand in front of a mirror. Use good posture while standing. Use good posture while sitting in a chair.
Practice using good posture while using the domestic sewing machine (P-GR)	Practice sitting correctly at the domestic sewing machine. Ask your teacher to check your posture and suggest how you can improve it.
Use good posture consistently while using the domestic sewing machine (P-M)	Use good posture each time you use the domestic sewing machine. Help other students improve their posture by giving suggestions when you see that they are not using good posture.
Identify the basic parts used in threading a domestic sewing machine (C-K)	Watch as your teacher points out the parts used in threading a domestic sewing machine. State the name of the part as your teacher points it out. [NOTE TO TEACHER: Additional information on domestic sewing machine parts can be found on p. 121.]
Label the parts which are used when threading the domestic sewing machine (C-K)	Circle the parts used in threading the domestic sewing machine as your teacher states the name of each part. [NOTE TO TEACHER: As each part is circled on the handout, check the students' answers, discuss the particular part, and point it out on a sewing machine in the VEH laboratory before stating the name of the next part to be circled. See p. 240 for the handout and answers.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Identify the parts used in threading a domestic sewing machine on an actual machine in the clothing service laboratory. Identify parts such as: spool pin, tension guide, take-up lever, thread guides, and eye of the needle.
Illustrate the steps involved in threading the domestic sewing machine (C-C)	Show the correct order of threading a domestic sewing machine by placing adhesive numbers on an actual sewing machine in the clothing service laboratory. Number 1 should begin with the thread spool and the last number would be located at the eye of the machine needle. Watch as your teacher shows you how to thread the domestic sewing machine. Thread the machine as your teacher explains the steps. [NOTE TO TEACHER: Use the correct name for the machine part as you verbally explain each step. Example: (1) Place the thread on the spool pin. Students place the thread on the spool pin. (2) Pull the end of the thread over to the thread guide near the take-up lever. Students pull the end of the thread over to the thread guide near the take-up lever. (3) Push the thread through the thread guide and pull it over to the tension guide. Students push the thread through the thread guide and over to the tension guide. (4) Wrap the thread around the tension guide. Students wrap the thread around the tension guide. (5) Pull the thread up and through the take-up lever. Students pull the thread up and through the take-up lever. (6) Take the thread down through the thread guides. Students take the thread down through the thread guides. (7) Put the thread through the eye of the needle. Students put the thread through the eye of the needle.] Draw on a handout of a sewing machine the correct order of threading a domestic sewing machine. [NOTE TO TEACHER: Draw a diagram of the domestic sewing machine head or heads used in the clothing service laboratory. Use colored ink to show how the machine should be threaded.] Show a classmate how to thread the domestic sewing machine. Ask your classmates to note any errors you made in threading the machine. Check your threading with the threading chart in your class.
Attempt to thread the domestic sewing machine (P-GR)	Practice threading the sewing machine. Ask for help from your teacher if you have difficulty.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Take the adhesive numbers off of the domestic sewing machine and try to thread the machine without them. Refer to your threading chart if necessary. [NOTE TO TEACHER: Use handout above.]
	Take turns showing other classmates how to thread the domestic sewing machine. Ask your classmates to tell you about any errors you make in threading the machine.
Perform the steps in threading a domestic sewing machine (P-M)	Thread the domestic sewing machine. Double check to make sure the machine is threaded correctly before beginning to sew. [NOTE TO TEACHER: Students might stitch on paper without thread to see how each part functions.]
Identify the parts of the machine used to fill the bobbin (C-K)	State the name of each part of the domestic sewing machine used when filling the bobbin. Repeat the name of the part after your teacher names each part. Where is the hand wheel? stop motion screw? bobbin cover? thread pin? tension wheel? winder spindle? foot pedal? Where is the bobbin located? Can you see the bobbin without moving the bobbin cover?
	Look at flash cards and identify the part of the domestic sewing machine which is pictured on each. [NOTE TO TEACHER: Hand wheel, stop motion screw, bobbin cover, thread pin, tension winder, winder spindle, and foot pedal should be included. See pp. 122-126.]
Name the steps involved in filling the bobbin (C-K)	View a film strip or a video tape on how to fill a bobbin. [NOTE TO TEACHER: The filmstrip or video tape demonstration on filling a bobbin could be made of students in the clothing service laboratory.] Where does the bobbin go? How do you loosen the stop motion screw? How do you keep the thread on the bobbin when you are starting to fill the bobbin?
	Watch your teacher fill the bobbin on a domestic sewing machine in the clothing service laboratory. Name each step as your teacher demonstrates it. Is the presser foot lowered during filling?
Illustrate how to fill a bobbin (C-C)	Describe to the class how a bobbin is filled. Explain how to unscrew the stop motion screw. What would happen if you forgot to unscrew the stop motion screw?
	Explain how to fill a bobbin. Use a domestic sewing machine in the clothing service laboratory. Point out each step used when filling the bobbin.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Practice filling bobbins (P-GR)	Attempt to fill the bobbin. Repeat each step for filling the bobbin after your teacher shows you the step.
	Practice filling bobbins on the domestic sewing machine in the clothing service laboratory. Choose a partner to watch you. Have your partner make suggestions when needed.
	Divide into two relay teams. Each team member will go to a sewing machine, wind the bobbin, take the bobbin off, and return to the end of the relay line. Repeat twice.
Fill bobbins correctly consistently (P-M)	Fill five bobbins. Tighten the stop motion screw. Give the bobbins to your teacher for evaluation.
Cite how to thread a bobbin case (C-K)	Watch as your teacher shows how to thread a bobbin case on a domestic sewing machine in the clothing service laboratory.
	Look at a handout showing the steps for threading a bobbin case. (See pp. 241-243.) Which way should the bobbin turn? How do you pull the thread through the slot? When do you put the bobbin in the bobbin case?
Explain how the bobbin case is threaded (C-C)	Use a poster of the bobbin case and explain to the class each step in threading the bobbin case. Indicate how the bobbin is placed into the bobbin case.
	Describe to the class how to pull the bobbin thread to the top of the machine. Where should the take up lever be? What would happen if the bobbin thread was not pulled to the top of the machine? (See p. 243.)
Attempt to thread the bobbin case (P-GR)	Thread the bobbin case on the domestic sewing machine in the clothing service laboratory. Ask your teacher for help if it is needed. Refer to the threading steps on the handout. (See pp. 241-243.) [NOTE TO TEACHER: Photographs or drawings on threading the bobbin case and winding the bobbin would be helpful to students having difficulty understanding instructions on the handout.] Repeat the procedure for threading the domestic sewing machine until done correctly. Have your teacher check it each time.
Complete the steps for threading the bobbin case (P-M)	Thread the bobbin case three times. Have your teacher check it after each try. [NOTE TO TEACHER: A chart for recording whether or not the skill was mastered is on p. 244.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Identify how to stitch on the domestic sewing machine (C-K)	View slides or a film on how to stitch on the domestic sewing machine. Notice that the take up lever is raised to the highest point before beginning to sew. Watch as your teacher shows you how to stitch on the domestic sewing machine. Name the steps aloud as your teacher does them. Example: (1) Raise the presser foot. (2) Place the fabric under the presser foot. Does the machine have a foot control or knee control? Where do you place your hands while stitching? How can your fingers help guide the fabric?
Experiment with the domestic sewing machine (P-GR)	Practice moving the hand wheel. [NOTE TO TEACHER: For blind students or students with impaired vision, it is suggested that the thread and needle be removed from the sewing machine until student has machine speed and fabric under control.] What happens when you move the hand wheel toward you? Which direction does the fabric go when you move the hand wheel in the direction away from you? Practice lifting up the presser foot. Let the presser foot down gently. [NOTE TO TEACHER: Blind students should keep their fingers flat on the machine and move them slowly to the presser foot, letting the index finger of the right hand touch the prongs of the presser foot.] Place a fabric sample under the presser foot. Let the presser foot down gently. Lightly press the foot control. Notice how slowly the fabric moves. Note the speed of the needle. [NOTE TO TEACHER: Show students how to place their hands on the fabric when stitching so they will know the fabric is not to be pulled but is to be guided with finger tips as the machine pulls the fabric through.] Press the foot control with more pressure. Does the needle move fast or slow? [NOTE TO TEACHER: Blind students can locate the machine needle by bringing the index finger of the left hand to the set screw above the needle *before* putting foot on the foot control. Tell students that the needle is up if the set screw is high; the needle is down, if the set screw is low.] If you want the machine to go slowly, how should you press the foot control?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Thread a domestic sewing machine in the clothing service laboratory. Choose a fabric sample and practice stitching. Stitch any design you wish on the fabric. Make designs by turning the fabric. [NOTE TO TEACHER: A tape stitching guide is helpful to blind students. Use ½ inch wide adhesive tape and place one strip of tape lengthwise from front of cabinet to metal bed. Place a second strip of adhesive tape from presser foot to the back wood edge of cabinet. Additional layers of tape should be added until the edge of the tape can be felt through the fabric. The left side of the tape is the stitching line. The right side of the tape is the seam allowance.]
	Experiment with running the sewing machine at different speeds. Never let your fingers get near the machine needle. [NOTE TO TEACHER: By keeping finger tips flat on throat plate of machine and by using the prongs of the presser foot to locate needle, the blind student will not get fingers caught by the machine needle as their fingers follow the fabric near the completion of a seam. A magnifying glass that attaches to the machine may be helpful for visually impaired students. A guard may need to be placed on the machine for some students to prevent injury.] Remember to use good posture when sewing on the domestic sewing machine.
Identify how to stitch on stitching cards (C-K)	Look at a stitching chart. [NOTE TO TEACHER: Patterns for stitching charts are on pp. 245-246. Straight and curved fabric samples can be used as stitching charts for blind students.] With your finger, follow the lines from the end of the line like you would when stitching on the sewing machine.
	Watch as your teacher shows you how to stitch on a stitching chart. Notice how your teacher positions the chart under the presser foot. The needle is directly over the beginning of a line. How does your teacher lower the needle to begin stitching?
Demonstrate how to correctly place a chart under the presser foot (P-S)	Choose a stitching chart with straight lines. Place it under the needle and presser foot. Lower the needle into the line on the chart by turning the balance wheel by hand. Lower the presser foot. (See p. 245.)
Try stitching straight lines (P-GR)	Stitch directly on the line of a stitching chart without using thread. Check your stitching each time you finish a line. Are the needle holes all on the line?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Play "Sew Straight Stitches." Stitch down one line and then let your partner stitch down the other line. Compare the two lines of stitching. Place an "X" on the straightest lines of stitching. If you have a question, ask your teacher. Repeat three times. The one with the most "Xed" lines wins. [NOTE TO TEACHER: Display the charts on the bulletin board titled, "Sew Straight Stitches." First place stars by the names of students with the best lines of stitching. Then as students repeat the activity place stars by the names of students who have improved their stitching the most. Try not to reward only those students who produce the best work but also reward those who improve their skills.]
Practice stitching curved lines (P-GR)	Practice stitching without thread on a stitching chart with curved lines. (See p. 246.) Practice stitching at a steady, even pace, even if you have to go slowly.
	Enter the "Sewing Sweepstakes Tournament." Choose three different types of charts and stitch on the lines. Give them to your teacher for judging. [NOTE TO TEACHER: Patterns for stitching charts are on pp. 245-246. Construct the tournament so that both the "winners" and "losers" continue to compete as shown on p. 247. Make a collage with the students' stitching charts and display in the VEH laboratory.]
Attempt stitching corners (P-GR)	Stitch on the stitching chart with corners. (See p. 248.) When you get to a corner make sure you leave the needle in the chart. Raise the presser foot and turn the chart. Lower the presser foot and begin stitching again. Check to make sure the stitching is all on the lines. Repeat as many times as necessary until you are good at turning corners.
Try to make straight stitches on fabric (P-GR)	Use the marked lines on the throat plate as a guide for stitching. Stitch lines 5/8 inch, ½ inch, and ¼ inch from the edge of the fabric sample. Try to keep the line of stitching as straight as possible. Remember to use good posture at the sewing machine.
	Use the edge of the presser foot as a guide for stitching. Stitch the first line by placing the edge of the presser foot next to the line of stitching on the right. Stitch across the entire fabric sample.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Perform the task of stitching on the domestic sewing machine (P-M)	Play "Battle of the Super Stitchers." Set up and thread the domestic sewing machine. Stitch straight lines, curved lines, and corners marked on fabric. (See p. 249.) Sew three straight lines using the presser foot as a guide. [NOTE TO TEACHER: Use p. 250 as a guide in evaluating the stitches. Award Super Stitcher certificates and licenses to all students. (See p. 251.)]
Identify the zigzag setting (C-K)	Watch as your teacher points out the way to move the controls for making a zigzag stitch. Which direction do you move each control? What do the controls look like?
	Identify the zigzag stitch by pointing to the controls on a domestic sewing machine in the clothing service laboratory.
	Tell how to move the controls if you want to make a zigzag stitch.
	Label the zigzag setting by placing a colored adhesive sticker on it. [NOTE TO TEACHER: Cut a circle out of colored adhesive tape.]
Explain how to make a zigzag stitch (C-C)	Take turns explaining to the class how to set the controls for zigzag stitching.
	Illustrate how to set the controls for zigzag stitching by moving the controls on a machine in the clothing service laboratory.
	View a demonstration by the teacher on how to stitch using the zigzag setting. Describe how the needle moves when using a zigzag stitch.
Attempt to use the zigzag stitch (P-GR)	With your teacher's help, set the controls on the domestic sewing machine for the zigzag stitch. Practice setting the controls until you can do so without help.
	Practice stitching with the zigzag stitch on scraps of fabric. Watch the movement of the needle as the stitch is formed. Try zigzagging along the edge of fabric. Try zigzagging with one side along a line. Try centering the zigzag stitch along a line.
Use the zigzag stitch as needed (P-M)	Use the zigzag stitch as needed to finish edges, as a decorative stitch or as a mending stitch on projects in the clothing services laboratory.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Identify the buttonhole attachment (C-K)	Watch as your teacher points out the parts of the buttonhole attachment. As the attachment is passed around, take turns naming the parts of the buttonhole attachment. Point to each part as your name it. Where is the metal template? What does it do? Where is the adjustment knob? What does it do?
Describe how to make buttonholes by machine (C-C)	Watch as your teacher shows you how to use the built-in buttonholer or buttonhole attachment. How do you decide what size buttonhole is needed? How do you tell the correct template or setting to use? What must you do before the buttonhole attachment can be placed on the machine? How is the attachment connected to the machine? How do you decide how wide the buttonhole stitch should be? How do you mark the position of the buttonhole on the fabric? How is the fabric positioned under the buttonhole attachment? Where should you start the buttonhole? Where should the needle be placed? How many times should you stitch around the buttonhole? Why should the adjustment knob be reset after each buttonhole? How are buttonholes cut after the stitching is completed?
Attempt to use the buttonhole attachment (P-GR)	Take turns attaching the buttonhole attachment to the machine. Decide the length of buttonhole needed. Select the correct template or setting. Decide the width the buttonhole stitching should be by making a test buttonhole on a scrap of fabric. Mark the position of the buttonhole on the fabric. Make three buttonholes. Ask your teacher for assistance when you are not sure what to do.
Make machine buttonholes as needed (P-M)	Use the built-in buttonholer or buttonhole attachment to make machine buttonholes as needed on projects completed in class.
Identify the zipper foot (C-K)	Watch as your teacher holds up the zipper foot. Hold the zipper foot. How many toes does the zipper foot have? How is it different from the regular presser foot?
Describe how to use the zipper foot (C-C)	Watch as your teacher attaches the zipper foot to the machine. How is the zipper foot positioned so that the needle will sew on either side of it? Do you move the foot or the needle on this machine when you want the needle on the opposite side of the foot? Does the zipper foot have a guide which can be moved back and forth and placed on either side of the foot?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Watch as your teacher sews in a zipper using the zipper foot. What is the reason for using a zipper foot to sew in a zipper? Why do you need to have the needle on different sides of the foot when sewing in a zipper.
Attempt to stitch close to zipper teeth using a zipper foot (P-GR)	Take turns trying to stitch close to the teeth of a zipper using a zipper foot. [NOTE TO TEACHER: You may not want to teach students actual zipper application until they are skilled in machine stitching.]
Use the zipper foot as needed (P-M)	Use the zipper foot to put in zippers or stitch close to edges as needed in clothing laboratory projects.

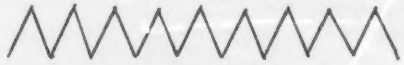
WORDS TO KNOW
About Domestic Machine Stitching
(Teacher Information Sheet)

machine head - the part of the sewing machine that stands up above the cabinet. It is the part with the dials.

cabinet - a case or table for holding the sewing machine.

straight stitch - a kind of machine stitch that makes a straight line. It is used when making seams.

zigzag stitch - a kind of machine stitch that goes from side to side. It is used when finishing edges. Example:



hand wheel - a round wheel on the right side of the sewing machine that moves the needle up and down. It can be turned by hand to place the needle in the right place to start stitching.

needle - a thin piece of metal with a sharp pointed end. It carries the thread through the fabric to make a stitch.

foot control - a square box on the floor that is pressed with the foot to make the machine go.

knee control - a long metal lever that extends from the cabinet below the machine head. It is pressed with the knee to make the machine go. It can be used in place of the foot control.

presser foot - the part below the needle that holds the fabric in place so that it can be stitched.

presser foot lifter - the lever that raises and lowers the presser foot.

bobbin - a small, round spool that holds the lower thread. It is placed in the lower part of the machine under the feed dog.

bobbin winder - a small spindle that holds the bobbin while it is filled with thread.

feed dog - tiny teeth that move the cloth for each stitch. It controls the length of the stitch.

bobbin cover - a moveable piece of metal that covers the bobbin.

sewing machine light - a light used to make the sewing area brighter. A good light makes it easier to see the stitches and fabric.

thread guides - the parts of the machine where the thread goes.

take up lever - the lever that moves the thread up at the beginning of each stitch.

spool pin - the part of the thread holder that holds the spool of thread. It is about two inches tall and is usually on top of the machine.

posture - holding your body upright so you won't get tired easily.

thread - long, thin strand used for sewing. Thread comes in many colors. Thread comes in many sizes. Thread may be made of cotton, polyester, silk, or other material.

threading the machine - putting thread through the thread guides and needle.

stitch - an in and out movement of the threaded needle into fabric. Stitches can hold two pieces of fabric together.

pattern selector - the dial or lever moved to set the machine at the decorative stitch wanted.

built-in buttonholer - the controls used to get the machine to make buttonholes.

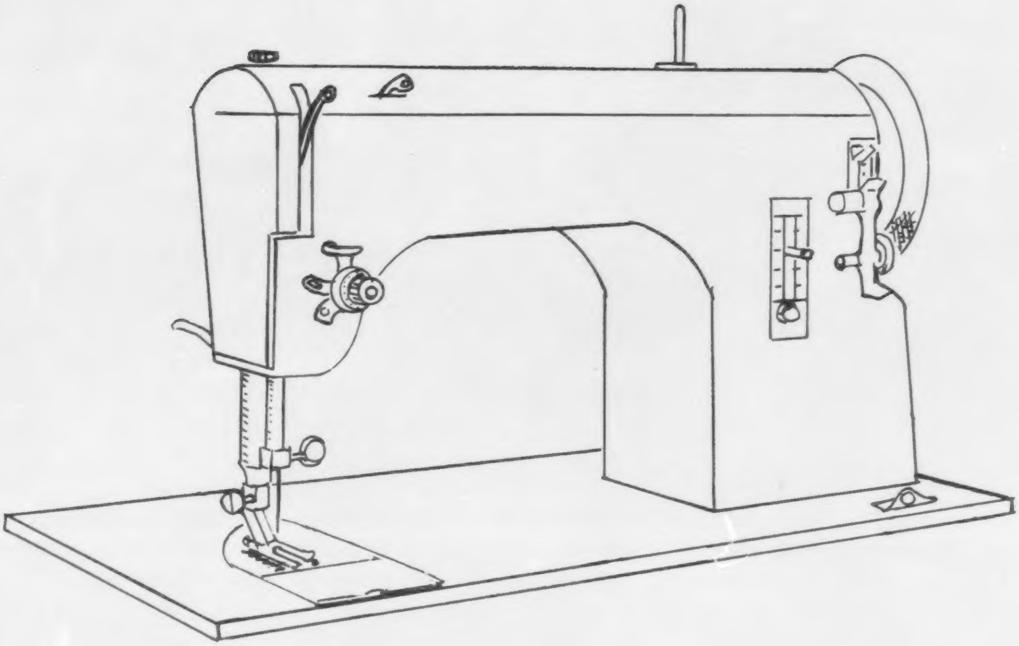
buttonhole attachment - a device used on some machines to make buttonholes.

zipper foot - a special presser foot used for stitching close to zipper teeth.

bobbin case - the small case that the bobbin fits in.

DOMESTIC SEWING MACHINE
(Handout)

DIRECTIONS: Circle the parts used in threading a sewing machine as your teacher states the name of each part.



ANSWERS:
spool pin
thread guides
tension guides
take-up lever
eye of needle

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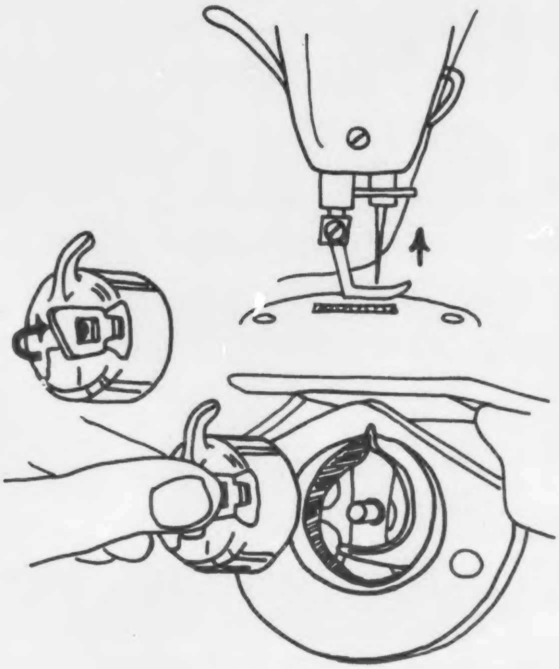
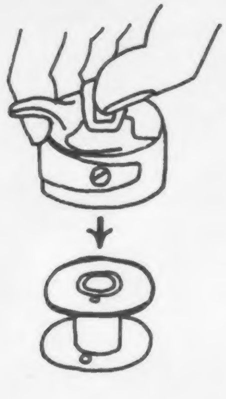
CHANGING THE BOBBIN



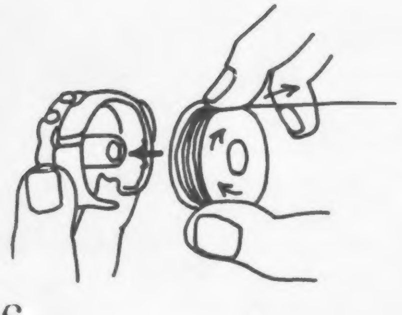
TO TAKE BOBBIN CASE OUT OF MACHINE

1. BE SURE NEEDLE IS AS HIGH AS IT GOES.
2. OPEN LATCH.
3. HOLD LATCH AND PULL CASE OUT.



TO TAKE BOBBIN OUT OF CASE

1. LET GO OF LATCH.
2. LET BOBBIN DROP OUT.

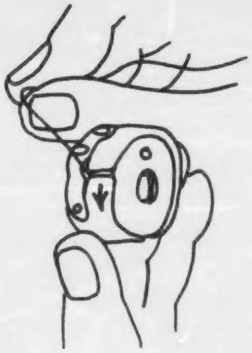


TO PUT BOBBIN IN CASE

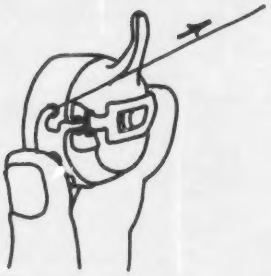
1. HOLD BOBBIN CASE WITH SLOT TOWARD YOU.
2. HOLD FILLED BOBBIN WITH END OF THREAD TURNING UP AND AWAY FROM YOU.
3. PUT BOBBIN INSIDE CASE.

TO THREAD BOBBIN CASE

1. PUT THREAD INTO SLOT.
2. PULL THREAD DOWN AND UNDER SPRING.



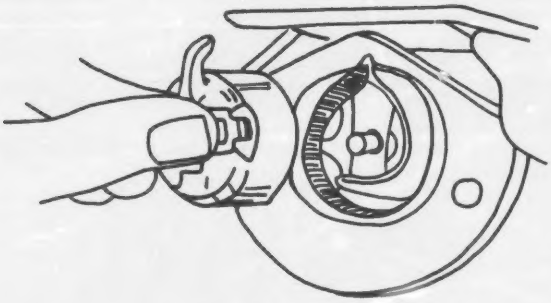
3. TURN BOBBIN CASE OVER. PULL THREAD UP AND INTO EYE.



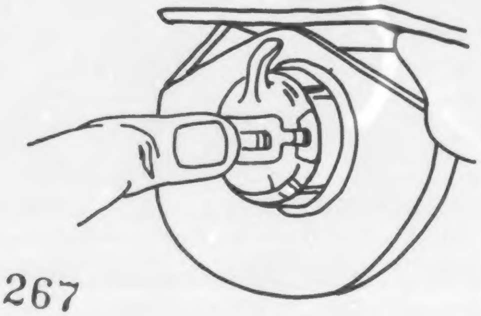
TO PUT BOBBIN CASE IN MACHINE

1. HOLD BOBBIN CASE BY LATCH.

2. PUT BOBBIN CASE ON PEG.

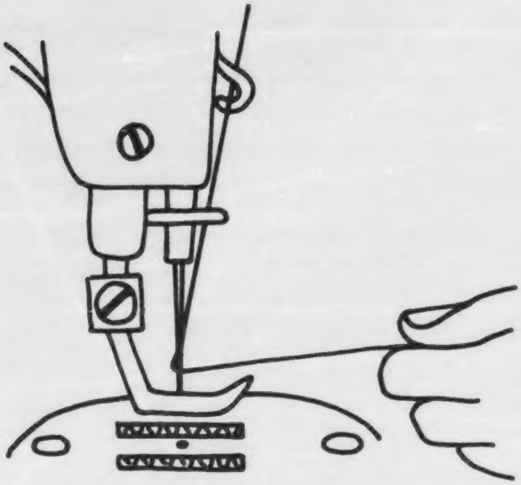


3. CLOSE LATCH.
4. PUSH BACK UNTIL LATCH CATCHES ON PEG. IT WILL "CLICK."

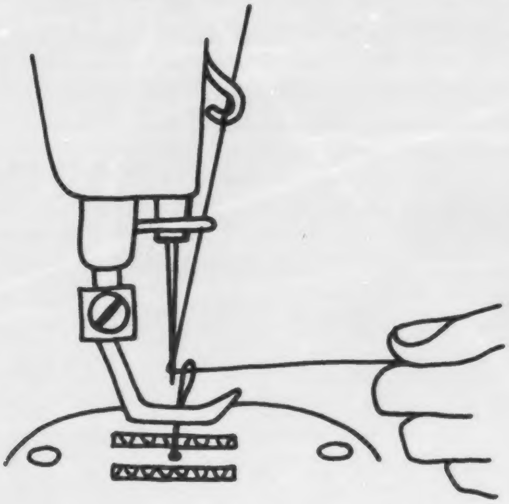


TO BRING BOBBIN THREAD TO TOP OF MACHINE

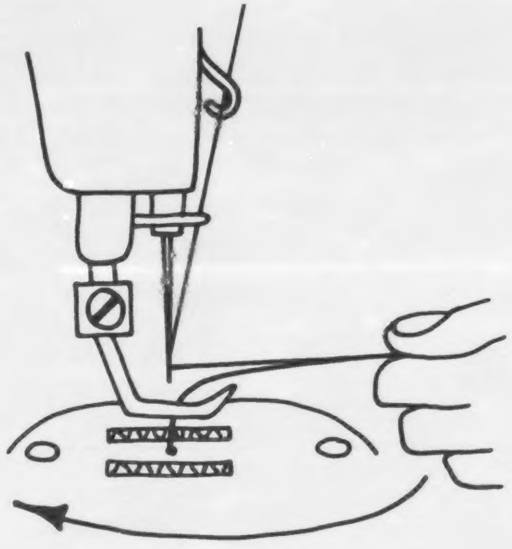
1. HOLD END OF TOP THREAD. TURN HAND WHEEL AROUND.



2. PULL UP TOP THREAD. IT WILL BRING BOBBIN THREAD UP IN A LOOP.



3. PULL UP END OF BOBBIN THREAD. PUT END OF TOP AND BOBBIN THREADS TOGETHER. PULL UNDER PRESSER FOOT TO BACK OF MACHINE.



THREADING THE BOBBIN CASE
(Teacher Information Sheet)

THE STUDENT CAN:	PERFORMANCE OF THE TASK		
	POOR	FAIR	GOOD
1. Place bobbin into bobbin case with thread coming off bobbin in a clockwise motion.			
2. Pull thread through the bobbin case tension guide.			
3. Place the bobbin case into the machine.			
4. Close the bobbin cover.			
5. Pull the bobbin thread up through the slide plate.			

[NOTE: Adapt to fit the machines in your classroom.]

STITCHING CHART–STRAIGHT LINES

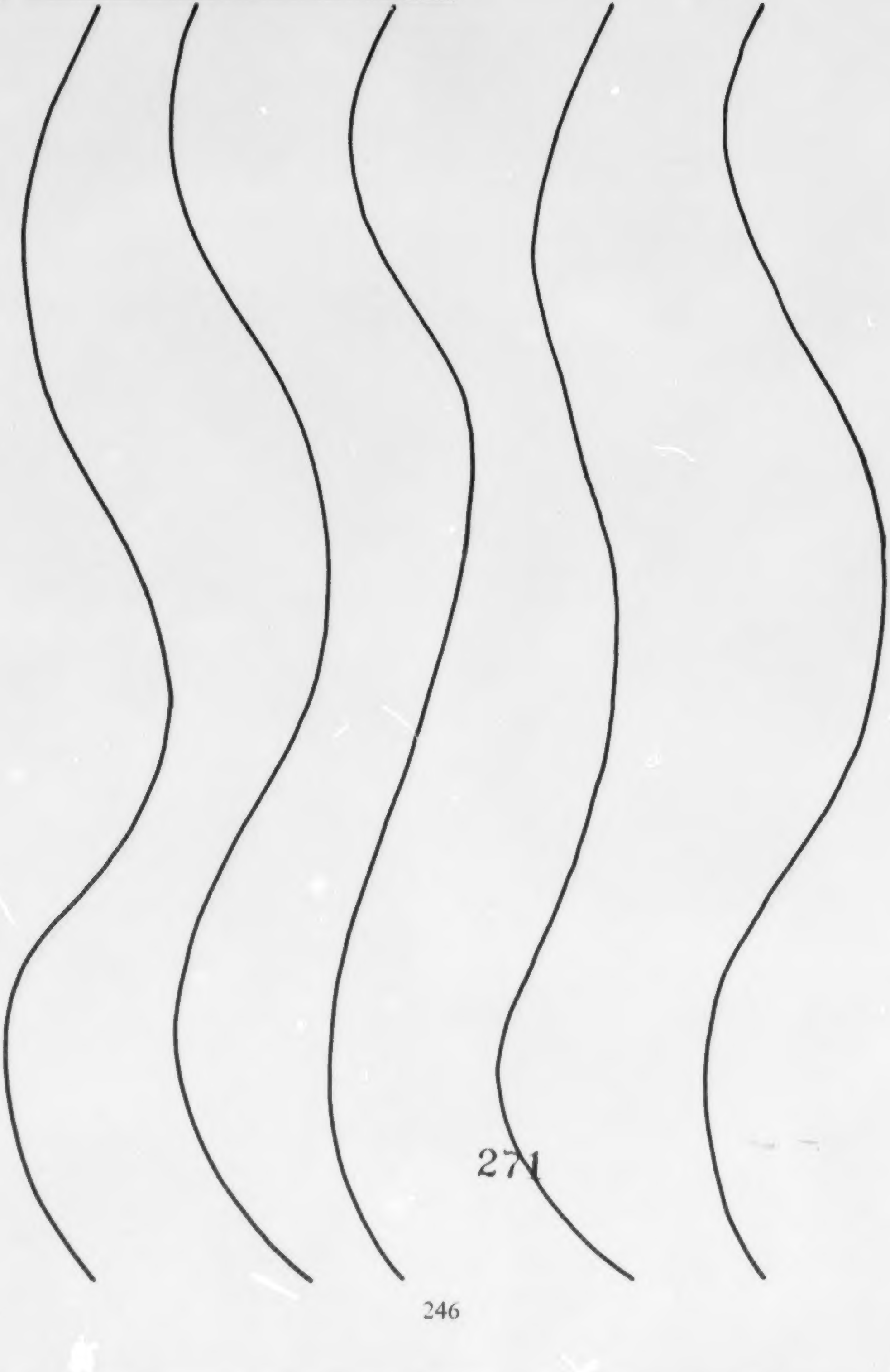
DIRECTIONS: Stitch down each line. Stay on top of each line.

NAME: ____________________________________

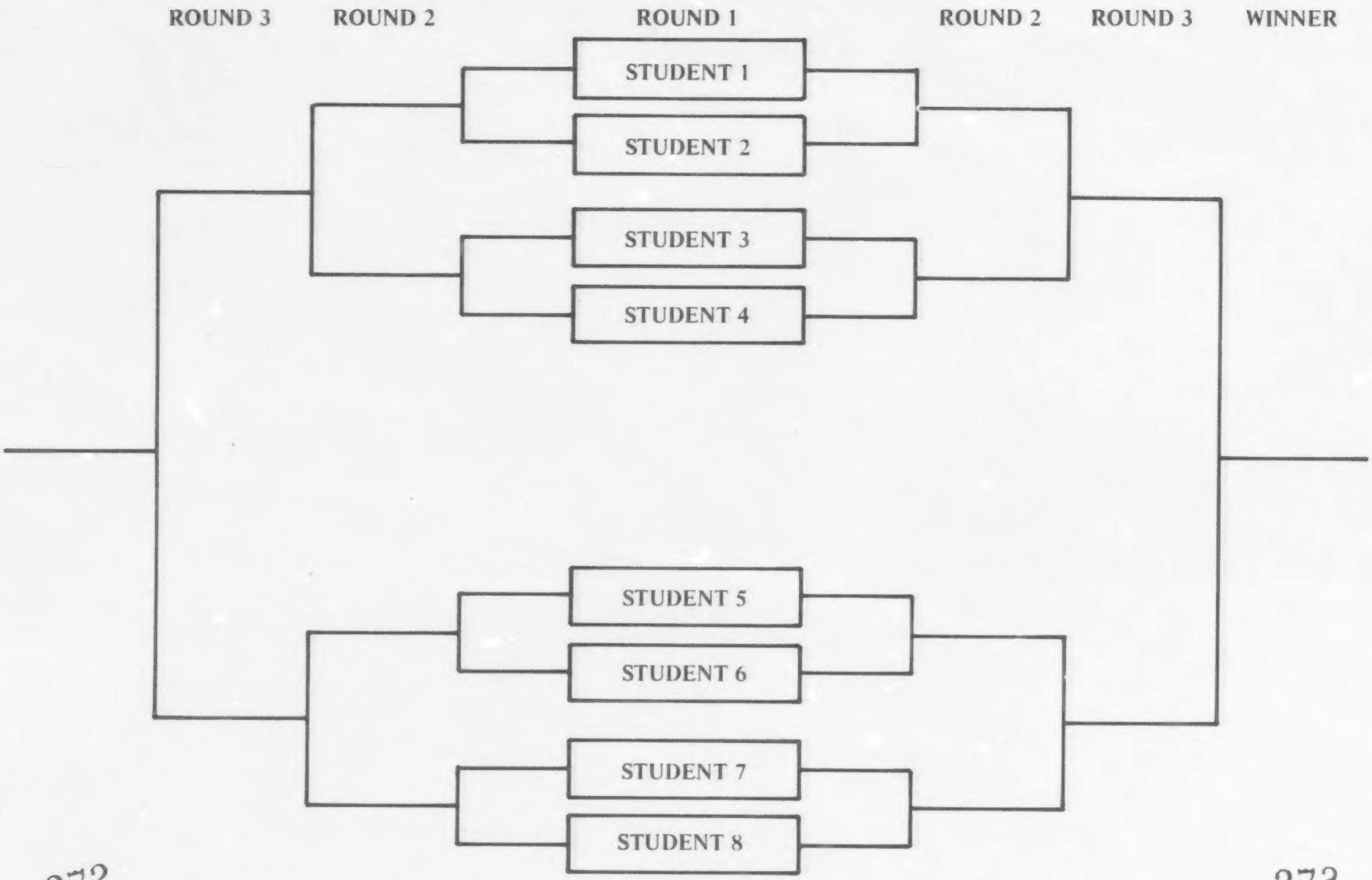
STITCHING CHART–CURVED LINES

DIRECTIONS: Stitch down each line. Stay on top of each line.

NAME: ______________________________



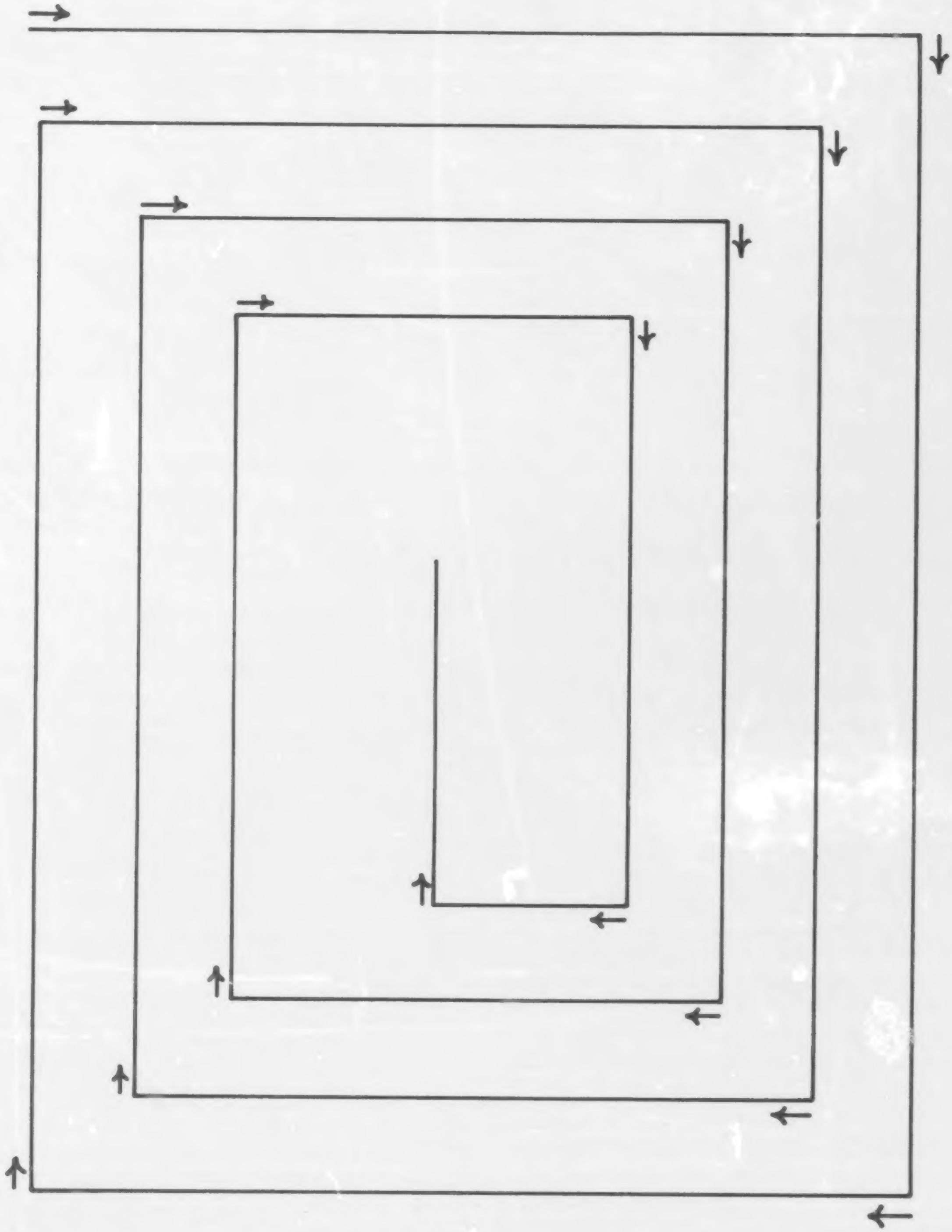
SEWING SWEEPSTAKES TOURNAMENT



STITCHING CHART–SQUARE CORNERS

DIRECTIONS: Start stitching at top. Follow arrows. Turn at corners.

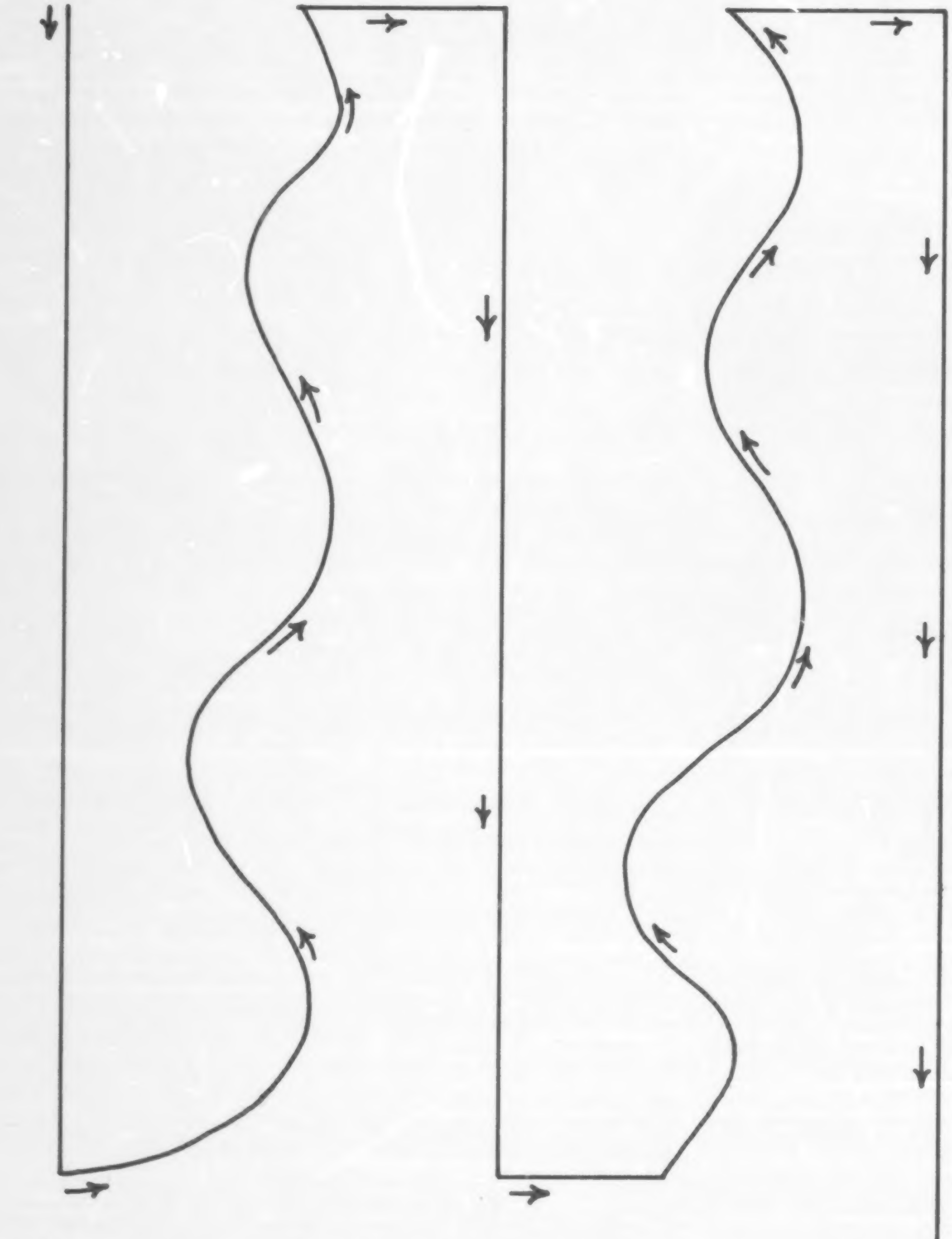
NAME: ________________________________



STITCHING CHART–STRAIGHT LINES, CURVED LINES, AND CORNERS

DIRECTIONS: Start stitching at top. Follow arrows.

NAME: ________________________________



BATTLE OF THE SUPER STITCHERS

NAME ______________________ CLASS ______________________ DATE ______________

DIRECTIONS: (1) Students will perform each of the tasks listed on Column A. (2) After the student completes each task, check (✓) the appropriate category in Column B which most closely describes how the task was performed. Criteria for evaluation: *unsatisfactory* - unacceptable for occupational situations; *limited* - needs improvement but might be acceptable in some occupational situations; *satisfactory* - acceptable in most occupational situations. (3) Point out in Column C specific areas that need improvement plus the areas in which the student does well. (4) Total the number of checks in each column.

COLUMN A	COLUMN B			COLUMN C
Task	Performance of Task			Comments
The Student Can:	Unsatis-factory 0	Limited 1	Satis-factory 2	
1. Set up the sewing machine.				
2. Thread machine.				
3. Fill the bobbin.				
4. Thread the bobbin case.				
5. Bring up the bobbin.				
6. Start machine by lowering presser foot and needle.				
7. Stitch a straight line marked on fabric.				
8. Stitch a curved line marked on fabric.				
9. Stitch a corner marked on fabric.				
10. Stitch 3 straight lines on fabric using the presser foot as a guide.				
11. Put sewing machine away.				
Total Number of Checks X Point Value	____ X 0	____ X 1	____ X 2	
= SUB-TOTAL				

Students getting a *total* of 11 points receive a Battle of the Super Stitchers Beginners Certificate. Students getting 18 or more points will receive the Battle of the Super Stitchers License.

BATTLE OF THE SUPER STITCHERS

BEGINNER'S CERTIFICATE

________________________________ *is making progress in learning to operate a sewing machine. This beginner's certificate entitles you to further training.*

Congratulations,

____

VEH Teacher

BATTLE OF THE SUPER STITCHERS

LICENSE

________________________________ *has satisfactorily learned to perform the tasks necessary for using the domestic sewing machine and therefore receives this license to use the domestic sewing machine.*

Congratulations,

____

VEH Teacher

BASIC SEWING SKILLS

Commercial Machine Stitching

COMPETENCY:	Ability to safely perform basic sewing skills.
SUB-COMPETENCIES:	Ability to adjust machine chair and knee lift to fit operator. Ability to thread the lockstitch machine. Ability to operate the lockstitch machine. Ability to thread the serger. Ability to operate the serger. Ability to thread the blindstitch machine. Ability to operate the blindstitch machine.
WORDS TO KNOW:	lockstitch machine serger (overedger) blindstitch machine bite nippers tweezers wire hook

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Cite ways to avoid operator fatique (C-K)	Watch as your teacher points out ways to keep from getting tired when sewing. [NOTE TO TEACHER: Show how different chair heights would be tiring and how incorrect height of the knee lift might make it difficult to operate.] Why should the chair and knee lift be adjusted to fit the operator? How is the chair adjusted? How is the knee lift adjusted?
Describe the procedure for adjusting the chair (C-C)	Explain to a classmate how to adjust the height of the chair used for sewing. How can you tell when the chair height is right?
Describe the procedure for adjusting the knee lifter (C-C)	Explain to a classmate how to adjust the knee lift. Why should the knee lift be adjusted after the chair is adjusted? Where should the knee lift be when it is the correct height? How is it adjusted?
Attempt to adjust the chair to the right height for sewing (P-GR)	With your teacher's help, adjust the chair to the right height for you. Is your thigh parallel to the floor?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Attempt to adjust the knee lift to the right height (P-GR)	With your teacher's help, adjust the knee lift to the right height for you. Does the knee lift feel comfortable against your leg?
Identify the steps for threading the lockstitch machine (C-K)	Watch as your teacher shows you how to thread the lockstitch machine. Notice each step that your teacher takes. Repeat aloud each step that is taken.
	Look at a picture of a lockstitch machine as your teacher points out the steps involved in threading the lockstitch machine. [NOTE TO TEACHER: Make a posterboard size diagram of a threaded lockstitch machine to be placed above the lockstitch machine used in the VEH laboratory. Use a different color of ink to illustrate threading the machine. See p. 264. Adapt drawing, if necessary, to the type machine used in your clothing service laboratory.]
	Place numbers on the drawing of the lockstitch machine showing the order in which each part of the machine is threaded. Ask for help from your teacher if you have difficulty. Find each part on the lockstitch macine used in the clothing service laboratory.
Practice threading the lockstitch machine (P-GR)	Rethread the lockstitch machine using the original thread as a guide. Repeat this process several times. [NOTE TO TEACHER: Cut thread off cone that is on the machine and remove the cone from the thread stand. Leaving the old thread in the machine, set new thread, preferably of a different color, on the stand and tie new thread end to old thread end. Raise the presser foot and let students pull the old thread through the machine until the knot passes through the needle eye. This will allow students to observe the path the thread follows while the machine is being threaded.]
	Thread the lockstitch machine without using an original thread as a guide. Have your teacher check your work.
	Work in groups of two to practice threading the lockstitch machine as your class observes and checks your work.
	As your teacher watches, thread the lockstitch machine. Did you do it right? Do you need to practice more?
Perform procedure for threading the lockstitch machine (P-M)	Thread the lockstitch machine as needed for sewing in the clothing service laboratory.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Cite steps in winding the bobbin on the lockstitch machine (C-K)	Watch as your teacher shows you how to wind the bobbin on the lockstitch machine. When must the bobbin be wound? Why must the thread ends be removed from the bobbin before rewinding? [NOTE TO TEACHER: See pp. 265-266 for illustrations.]
	Look at a drawing of a lockstitch machine as your teacher points out the parts used to fill the bobbin. Find each part on the lockstitch machine used in the clothing service laboratory as your teacher points to the part on the diagram.
Practice procedure used to fill the bobbin on a lockstitch machine (P-GR)	Try filling a bobbin with your teacher's help. Repeat this process several times remembering the following safety rules: (1) Keep all loose thread away from the motor belt. (2) Raise the presser foot with the knee lift while filling the bobbin. (3) Fill bobbins as you sew to save time. (4) Do not operate the machine at top speed to fill the bobbin.
	Work in teams of two to practice filling the bobbin on a lockstitch machine. Ask your partner to tell you how you can do better the next time.
Use correct procedures to fill the bobbin on a lockstitch machine (P-M)	Fill bobbins for the lockstitch machine as needed for sewing projects in the clothing service laboratory.
Note the procedure for inserting the bobbin into the lockstitch machine (C-K)	Watch as your teacher shows you how to thread the lower part of the lockstitch machine. What would happen if the thread in the bobbin case was not going the proper direction? Why must the bobbin case be placed into the bobbin case holder securely? How is the lower thread brought to the top?
	Look at pictures showing the correct way to thread the bobbin case. Listen as your teacher explains what is being done in each picture. [NOTE TO TEACHER: See pp. 241-243 for illustrations.]
Practice threading the lower part of the lockstitch machine (P-GR)	Follow the steps for threading the lower part of the lockstitch machine as your teacher shows you each step. Remember to follow these safety rules: (1) Keep both feet off the treadle. (2) Do not place the bobbin in the bobbin case with the needle down. (3) Close the bobbin cover before using the machine.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Practice each step in threading the lower part of the lockstitch machine. Have your teacher check your work. Take turns showing your classmates how to thread the lower part of the lockstitch machine.
Perform procedures for threading the lower part of the lockstitch machine (P-M)	Thread the lower part of the lockstitch machine following all safety rules.
State correct placement of feet on foot treadle (C-K)	Watch as your teacher shows you the correct way to place your feet on the foot treadle. Which foot is higher on the treadle? Should the feet be straight or angled on the treadle? Which foot is used to make the machine go? Which foot is used to stop the machine?
Place feet in the correct position for sewing (P-S)	Sit at the sewing machine and place your feet on the treadle. Ask your teacher to check the position of your feet.
Attempt to control the machine using the foot treadle (P-GR)	Work on fabric scraps to practice controlling the machine. Start the machine. Increase speed. Stop the machine. Repeat until you can control the machine easily.
Cite three procedures for backtacking (C-K)	Watch as your teacher shows you three ways to backtack. [NOTE TO TEACHER: Acceptable procedures for backtacking are: (1) Sew about three stitches. Raise presser foot slightly. Pull fabric back to start while stitching. Release presser foot and stitch again over first two sets of stitching; (2) Sew about three stitches and raise presser foot slightly. Stop machine and return to start. Stitch over first row of stitches; (3) Sew a few inches and stop machine. Release pressure from presser foot. Stitch three or four times in place holding fabric firmly.
Identify the stitching made by the lockstitch machine (C-K)	Look at a sample of stitching made by the lockstitch machine. Will the stitch ravel out easily? [NOTE TO TEACHER: Place the sample of stitching near the lockstitch machine used in the clothing service laboratory.] Look at a garment stitched with the lockstitch sewing machine. What does the stitch look like?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Observe the steps of how to operate the lockstitch machine (P-P)	View a demonstration by your teacher on how to use the lockstitch machine. Notice each step that the teacher takes. Repeat aloud each step that is taken. [NOTE TO TEACHER: Steps for operating the lockstitch sewing machine include: (1) turn on the power switch and let the motor run for a few minutes, (2) place both feet on the treadle, (3) place the fabric under the presser foot by lifting the presser foot with the knee lift, (4) operate the treadle; to make the machine go– press on the top of the treadle with the toe of your left foot, and (5) to stop the machine–press down on the bottom of the treadle with your right foot.]
Describe how to stitch on the lockstitch machine (C-C)	As your teacher shows you a step in operating the lockstitch machine, explain that step to the class. [NOTE TO TEACHER: Always demonstrate the steps in the order of their sequence so students will not become confused.]
Practice operating the lockstitch machine (P-GR)	Turn the power switch on and off. Notice the sound of the motor when the power switch is on. Put your feet on the treadle and turn the machine on. Make the machine go by pressing down on the treadle. Stop the machine. Practice starting and stopping the machine. [NOTE TO TEACHER: Remove the thread and needle from the machine to prevent accidents while students are experimenting with the machine. A wire finger guard may be placed on the presser foot to prevent students from sewing over their fingers.]
	Experiment with sewing at different speeds. Notice that the speed is controlled by how much you press down on the treadle. How do you make the machine go fast? How do you make the machine go slowly?
Practice stitching with the lockstitch machine (P-GR)	Stitch directly on the line of a stitching chart. Stop at the end of a line. Check your work. Are all the needle holes on the line? Repeat until you can keep most of the needle holes on the line. Show your stitching charts to your teacher. [NOTE TO TEACHER: Make stitching charts on paper for students to use for practice. At first the object is to stitch straight, not necessarily fast. Remind students to hold the paper lightly with the left hand and guide it into the machine with the right hand.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Choose a stitching chart with curved lines. Follow the lines at a smooth, slow speed. Circle the parts of the lines that do not have stitching on them. Repeat until you can keep most of the needle holes on the lines. Have your teacher check your work. Why should you slightly release pressure from presser foot to sew sharp curves? Stitch around a fabric square. Why should the needle be left in the fabric when you turn a corner?
	Play "What's My Line?" to practice stitching straight lines. Work in teams of two. Stitch down one line and then let your teammate stitch down the line beside it. Each teammate will complete three lines of stitching. [NOTE TO TEACHER: Display the charts on a bulletin board titled, "What's My Line?" Put the students' names on the charts above their line of stitching. Have each student look at their lines of stitching and decide on the line with the straightest stitching. A star can be placed at the top of that line of stitching. See p. 267.]
	Practice making a line of stitching on fabric using the throat plate of the lockstitch machine as a guide. Try to make the lines as straight as possible. [NOTE TO TEACHER: It may be necessary to use striped fabric at first.]
	Practice setting the width gauge on the lockstitch sewing machine. Practice guiding fabric against the width gauge. What happens when material is fed short of guide? What happens when material is fed too far to the right?
	Stitch two pieces of fabric together. Repeat as often as necessary and try to go as quickly as you can.
	Try to stitch along the edges of three different lengths of fabric. Have your teacher check your work.
Identify the steps involved in threading the serger (C-K)	Watch as your teacher shows you how to thread the serger. How many cones of thread does the serger use? Why must a wire hook be used in threading the loops?
	Look at a drawing of a serger as your teacher points out the steps involved in threading it. [NOTE TO TEACHER: Make a poster-board size threading diagram of a threaded serger to be placed above the serger in the VEH laboratory. Use different colors of ink to illustrate threading the machine. See your machine manual for threading chart.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Place numbers on the drawing of the serger showing the steps for threading each part of the machine. Ask your teacher for help if you have difficulty. Find each part on the serger used in the clothing service laboratory.
Practice threading the serger (P-GR)	Rethread the serger using the original threads as guides. Repeat this process several times. [NOTE TO TEACHER: Students may use the tie-on method as used previously in this lesson with the lockstitch machine.]
	Try threading the serger without using original threads as guides. Refer to the threading diagram as needed.
	Work in teams of two to practice threading the serger. Have your teacher check your work.
Perform procedures for threading the serger (P-M)	Thread the serger as your teacher watches. Did you thread it right? Can you thread it faster? Thread the serger as needed for sewing in the clothing service laboratory.
Identify the stitching made by the serger (C-K)	Look at a sample of stitching made by the serger. How many threads are used to form the stitch? Will the stitch ravel out easily? [NOTE TO TEACHER: Place the sample stitching near the serger used in the VEH laboratory.]
	Look at a garment which has stitches made by the serger. What does the stitch do?
Observe the procedures for using the serger (P-P)	Watch as your teacher shows you how to use the serger. Repeat aloud each step that is taken. [NOTE TO TEACHER: Steps for operating the serger should include: (1) turn on the power switch and let the motor warm up, (2) place both feet on the foot threadle, (3) put fabric into feed area without lifting the presser foot, (4) operate the treadle, to make the machine go–press on the top of the treadle with the toe of your left foot, and (5) to stop the machine–press down on the bottom of the treadle with your right foot.] As your teacher shows you a step, repeat what is being done.
Practice operating the serger (P-GR)	Turn on the power switch and notice the sound of the motor on the serger. Practice starting and stopping the machine by operating the treadle. How does the operation of the serger differ from that of the lockstitch machine? How is it the same? [NOTE TO TEACHER: Remove the needle and thread from the serger while students are practicing.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Try using different speeds on the serger. How do you make the machine go fast? How do you make the machine go slow?
	Place a scrap of fabric into the feed area of the serger. With your teacher's help, practice guiding fabric through the machine. [NOTE TO TEACHER: Let students practice guiding the machine with the needle and thread removed.]
Practice stitching on the serger (P-GR)	Watch as your teacher shows you how to stitch using the serger. How far should the stitching be from the edge of the fabric? How is the thread cut after the fabric is out of the feed area?
	Practice serging at random on fabric samples with your teacher's help. Remember not to pull the fabric to the left or toward you.
	Try serging off the straight edges of fabric samples. Check to make sure that you are serging ¼-inch off the edge of the fabric. Why can't you turn a corner with the serger? What should you do instead?
	Practice serging together the edges of fabric samples. Have your teacher check your work.
	Watch as your teacher shows you how to serge on curves and angles. Why must you chain off at each angle?
	Follow the steps for serging curves and angles using a practice pattern as your teacher shows you each step. [NOTE TO TEACHER: For practice pattern, see pp. 246; 248.]
	Continue to serge around the practice pattern until it is too small to work with. Have your teacher check your work.
Observe procedures for threading the blindstitch machine (P-P)	Watch as your teacher shows you how to thread the blindstitch machine.
	Look at a drawing of a blindstitch machine as your teacher points out the steps involved in threading. [NOTE TO TEACHER: Make a poster-board size diagram of a threaded blindstitch machine to be placed above the blindstitch machine used in the VEH laboratory. Use a different color of ink to illustrate threading the machine. See your machine manual for threading diagram.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	With your teacher's help, place numbers on the diagram of the blindstitch machine showing the order in which each part of the machine is threaded. Find each part on the blindstitch machine used in the clothing service laboratory.
Practice threading the blindstitch machine (P-GR)	Rethread the blindstitch machine using the original thread as a guide. Repeat this process several times. [NOTE TO TEACHER: Students may use the tie-on method as used previously in this lesson.]
	Thread the blindstitch machine without using an original thread. Use the threading diagram as needed. Have your teacher check your work.
	Take turns showing the class how to thread the blindstitch machine.
Perform procedures for threading the blindstitch machine (P-M)	Thread the blindstitch machine as your teacher watches. Did you thread it right? Can you thread it faster than before?
	Thread the blindstitch machine without assistance as needed for sewing in the clothing service laboratory.
Identify the stitching made by the blindstitch machine (C-K)	Look at a sample of stitching made by a blindstitch machine. Can you easily see the stitches from both sides of the fabric?
	Look at a garment which has stitches made by the blindstitch machine. What does the stitch do? [NOTE TO TEACHER: Place the sample of stitching near the blindstitch machine used in the clothing service laboratory.]
Note procedures for operating the blindstitch machine (C-K)	Watch as your teacher shows you how to sew on the blindstitch machine. [NOTE TO TEACHER: Steps for operating the blindstitch machine include: (1) turn on the power switch and let the motor warm up, (2) place both feet on the foot treadle, (3) place fabric into the folder, (4) operate the treadle—to make the machine go, press on the top of the treadle with the toe of your left foot, (4) to stop the machine, press down on the bottom of the treadle with your right foot.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Practice operating the blindstitch machine (P-GR)	Turn on the power switch and practice starting and stopping the machine by using the treadle. Make the machine go fast and slow. How is the treadle on the blindstitch machine the same as that on the lockstitch machine and serger? Why may the ridge need to be adjusted? How is the ridge adjusted? Does the machine have a folder? [NOTE TO TEACHER: Remove the needle and thread from the machine while students are practicing.] Place a scrap of fabric into the folder of the blindstitch machine. With your teacher's help, practice guiding the fabric through the machine. [NOTE TO TEACHER: Let students practice guiding the fabric through the machine with the needle and thread removed.]
Practice stitching on the blindstitch machine (P-GR)	Watch as your teacher shows you how to stitch using the blindstitch machine. How is fabric fed into a machine without a folder? How is the fabric placed into a machine that has a folder? What happens is the fabric is fed too far to the left? to far to the right? With your teacher's help, practice stitching on fabric samples using the blindstitch machine. Check to see if your stitches show on the right side. Adjust the ridge if needed. [NOTE TO TEACHER: The purpose of using the blindstitch machine is to make stitches that are not visible on the right side of the fabric. The thicker the fabric is, the easier it will be to make the blind stitch invisible. It is impossible to keep stitches from showing from the right side of very lightweight fabric.] Try to make a hem on fabric samples using the blindstitch machine. Have your teacher check your work. Practice hemming garments using the blindstitch machine. Check to make sure your stitches do not show on the right side and that your hem is even.
Point cut the sewing machine used to produce various stitching (C-An)	As your teacher describes a stitch, tell the class the name of the sewing machine used to make that stitch. Show the class where the sewing machine is located in the clothing service laboratory. Draw a sample of stitching from a box. Name the commercial sewing machine used to make the stitching.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Use commercial sewing machines as needed (P-M)	Construct a simple apron to protect your clothes while you work in the clothing service laboratory. (See pp. 268-271.) What commercial sewing machines did you use to make the apron? Where did you use straight seams? Where did you stitch curves? Construct a variety of class projects on commercial sewing machines using the proper techniques.

WORDS TO KNOW
About Commercial Machine Stitching
(Teacher Information Sheet)

lockstitch machine - a sewing machine that makes a seam that is the same on both sides. It uses two threads, one on top and one on the bottom, to make a stitch. The lockstitch machine *always* has a bobbin.

serger (overedger) - a sewing machine which makes its stitch over the edge of the fabric. Overedging is used to keep the edge of the fabric from raveling. It does not have a bobbin, but it does have a looper. The stitch is not the same on both sides.

blindstitch machine - a sewing machine that makes a stitch that does not show. The blindstitch machine has only one thread. The machine has a curved needle.

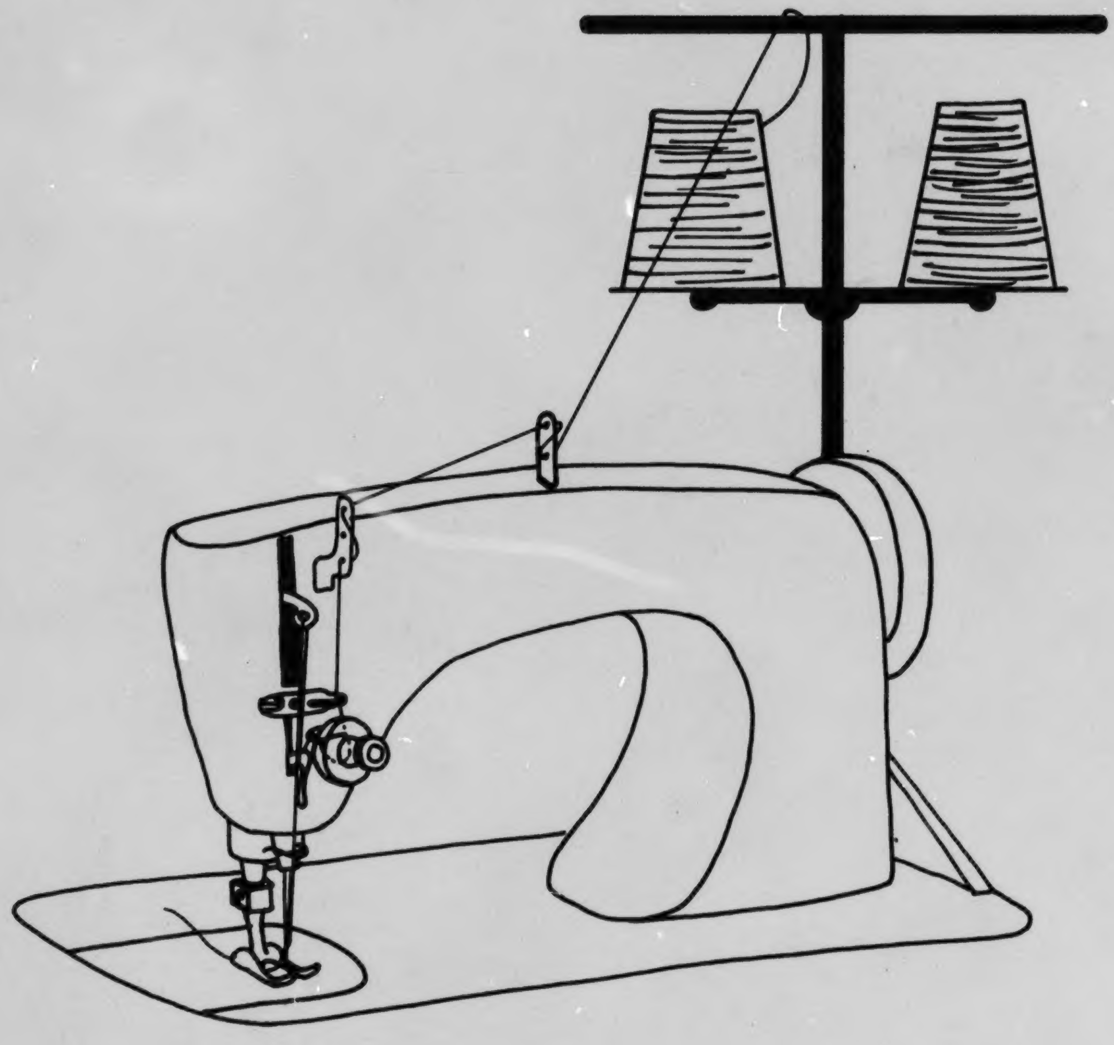
nippers - small cutters which spring back open after they are closed. Nippers are used to cut threads while threading the sewing machine.

tweezers - a small tool used for grasping and pulling something. Tweezers may be needed when threading some sewing machines. They are used to pull the thread through hard-to-reach places.

wire hook - a long wire with a curved end used in threading hard-to-reach places on some sewing machines.

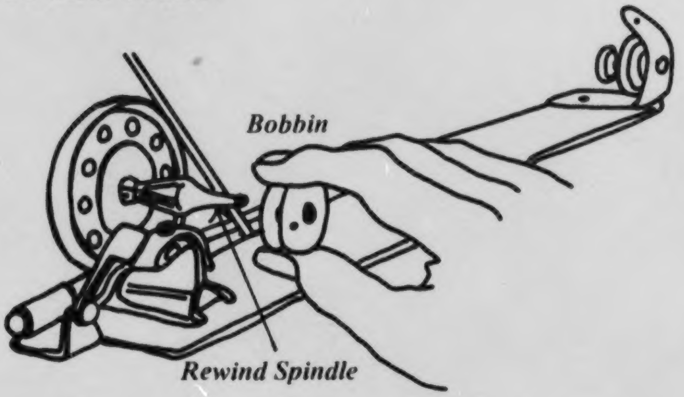
bite - how far the needle on the blindstitch machine goes into the material. The bite is adjusted by moving the ridge up and down.

THREADING THE LOCKSTITCH MACHINE

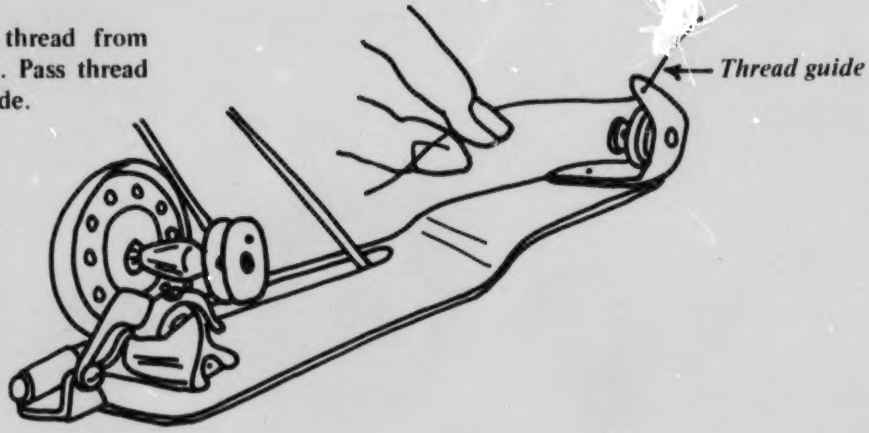


TO WIND BOBBIN

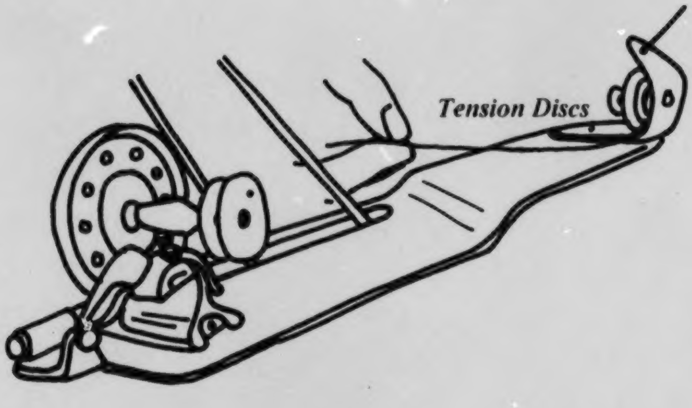
1. Place bobbin on rewind spindle.



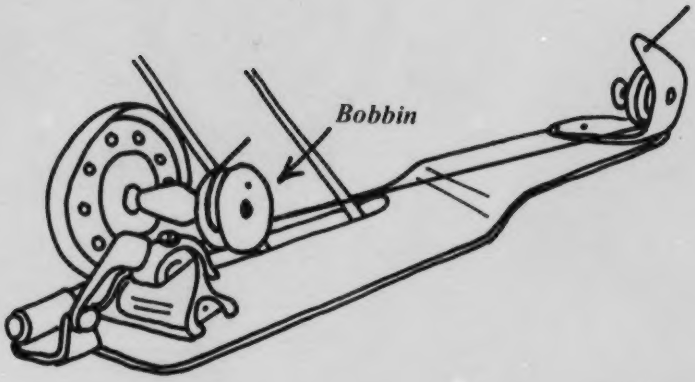
2. Pick up end of thread from extra thread cone. Pass thread through thread guide.



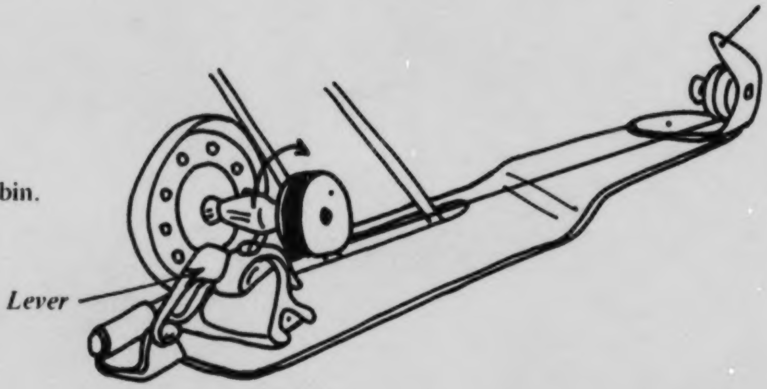
3. Place thread between tension disks.



4. Secure thread around bobbin.



5. Press lever to fill bobbin.



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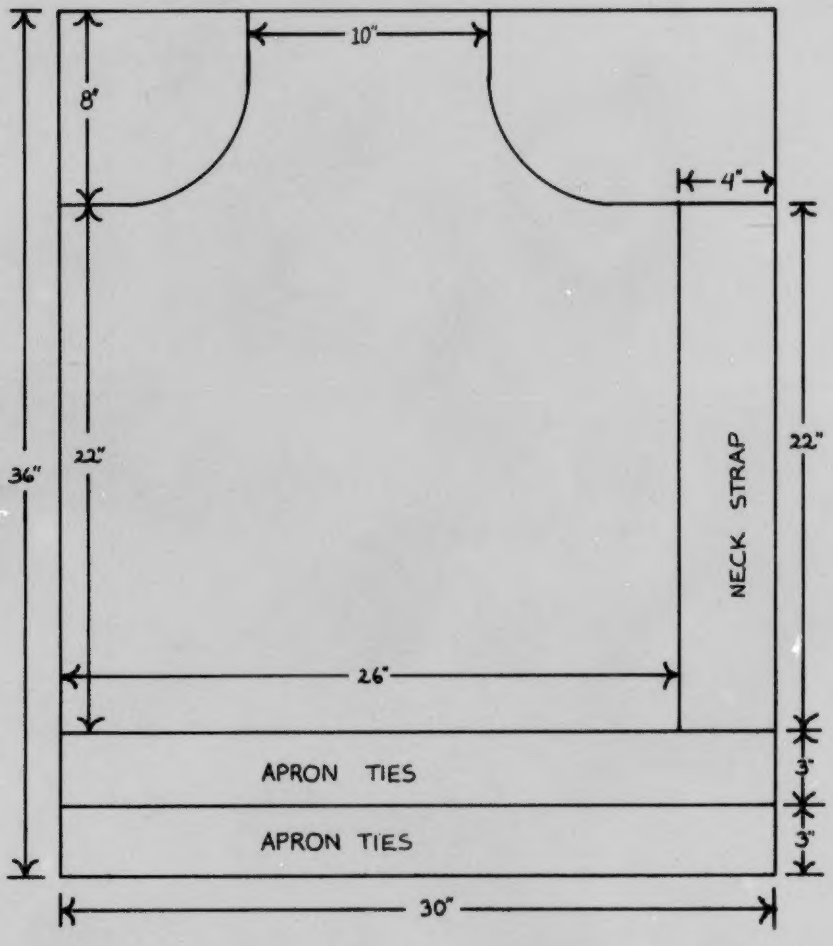
WHAT'S MY LINE?

Name:	Name:	Name:	Name:	Name:	Name:

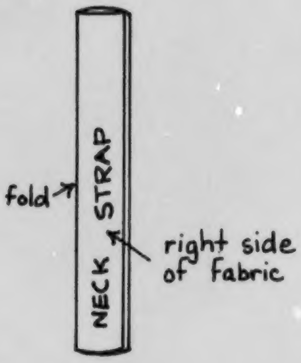
APRON MADE WITH COMMERCIAL SEWING MACHINE
(Class Project)



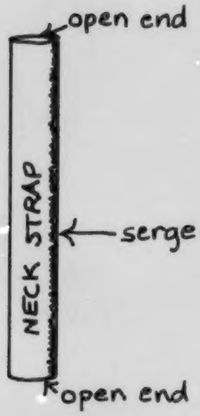
FABRIC YARDAGE: 1 yard of fabric, 44-45 inches wide for *one* apron; or 1 yard of fabric, 58-60 inches wide for *two* aprons. Fabric suggestions: any medium-weight fabric such as denim, duckcloth, broadcloth, cotton or synthetic blends, or light-weight vinyl.

[NOTE TO TEACHER: Cut apron out according to the pattern layout and fabric yardage information above. The apron may be stitched on the commercial serger machine, as shown in the directions, or with the commercial lockstitch machine.]

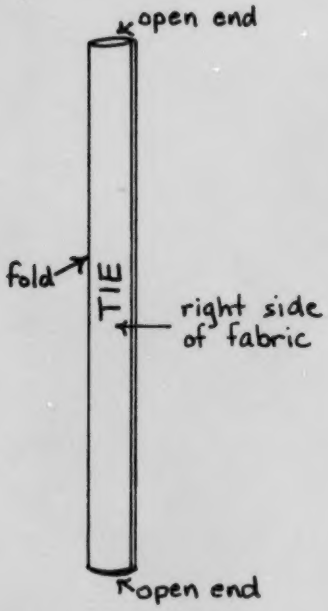
DIRECTIONS:



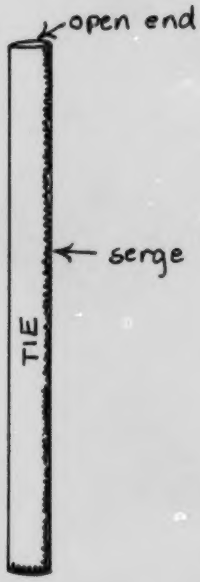
1. Make neck strap by folding fabric strip in half lengthwise, *wrong* sides together.



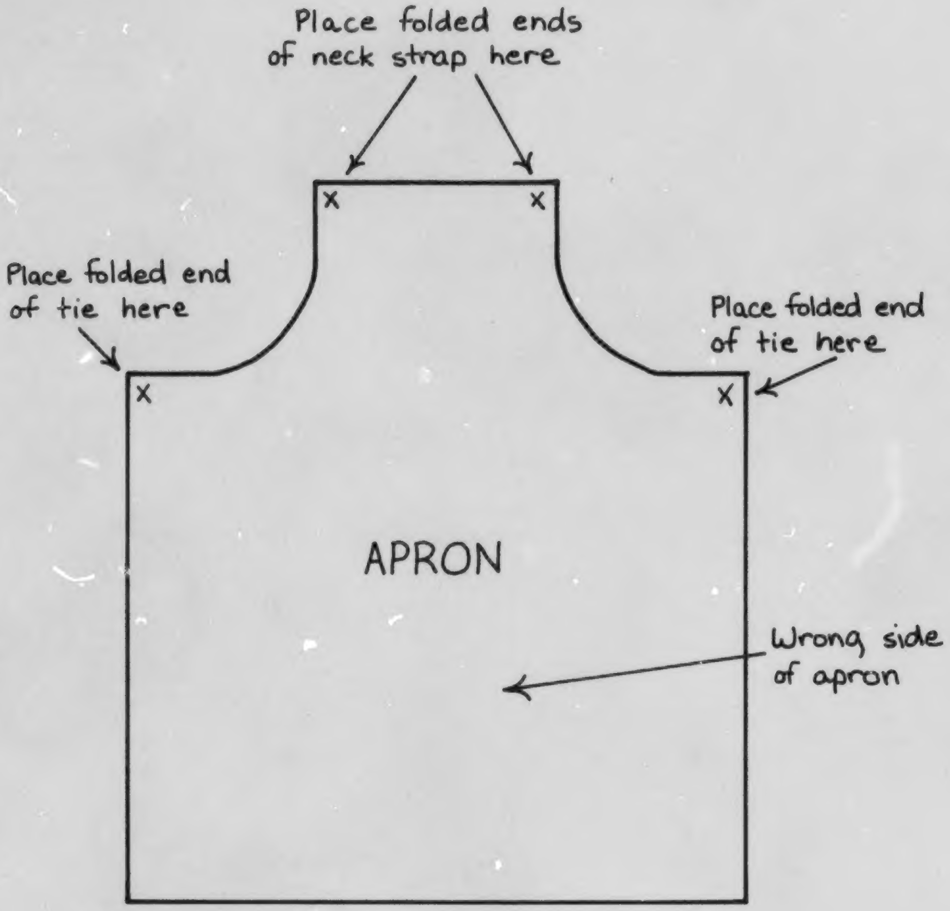
Using the serger, serge raw edges of the neck strap together leaving *both* ends open.



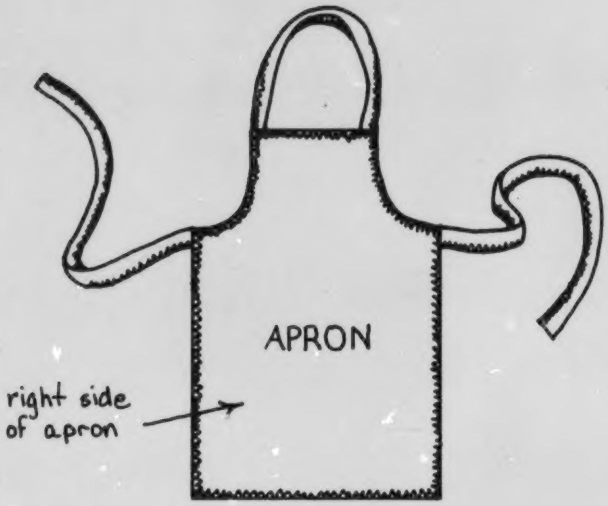
2. Make ties by folding both fabric strips in half lengthwise, *wrong* sides together.

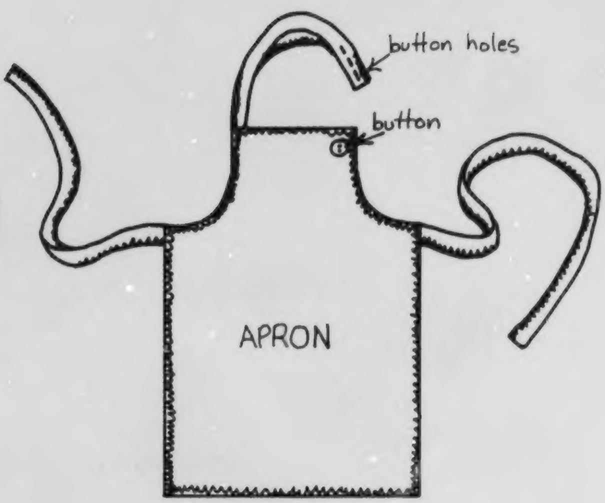


Serge raw edges of the ties together, leaving *one* end of each tie open.


Place folded ends of neck strap here
X
X
Place folded end of tie here
Place folded end of tie here
X
X
APRON
Wrong side of apron

3. Serge around entire body of apron catching the open ends of the neck strap and ties in the stitching. The neck strap and ties should be positioned as indicated by the X's on the diagram above.





Fold open ends on neck straps and ties down ¼-inch before serging. The folded edges of the neck strap and ties should be placed next to back side of the apron (wrong side of fabric).

[NOTE TO TEACHER: If different sized students will be using the apron, buttonholes may be placed on apron neck strap so that it may be buttoned onto the corner of the apron bib. This will allow the neck strap to be adjusted to the students.]

BASIC SEWING SKILLS

Pressing

COMPETENCY:	Ability to safely perform basic sewing skills.
SUB-COMPETENCIES:	Ability to use a dry or steam iron. Ability to use a press cloth. Ability to press various garment parts. Ability to press a variety of fabrics. Ability to use an apparel steamer for pressing.

WORDS TO KNOW.

- press
- iron
- press cloth
- ironing board
- tailor's ham
- sleeve board
- point presser
- needle board
- pounding block
- press board
- skirt board
- press mitt
- seam roll
- apparel steamer

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Recognize the importance of pressing (C-K)	Listen as your teacher discusses the reasons for pressing. How does pressing improve the appearance of a garment? Do all garments need to be pressed? View two garments, one that is pressed properly, the other that is not. How do the garments differ in appearance?
Identify various pressing equipment (C-K)	Look at a card given to you by your teacher with a picture of a piece of pressing equipment on it. Locate that piece of equipment in the laboratory and tell the class what it is called. [NOTE TO TEACHER: Cards should include pictures of pressing ham, point presser, iron, needle board, sleeve board, ironing board, press cloth, etc. See p. 147 for review of pressing equipment.]
Observe procedures for pressing (P-P)	Watch as your teacher shows you how to press. How does pressing differ from ironing? What motion is used for pressing? When should pressing be done? Why should pressing be done on the wrong side of the fabric? Why should you never press over pins or basting thread?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Practice pressing with a dry iron (P-GR)	Try the steps for pressing as your teacher shows you each step. [NOTE TO TEACHER: At first, have students practice pressing with the iron in the OFF setting.]
	Practice pressing samples of fabric with a dry iron. Have your teacher check your work. [NOTE TO TEACHER: See lesson on pressing equipment, pp. 142-143, for review on using dry iron.]
Note methods of applying moisture while pressing (C-K)	Listen as your teacher describes the ways to add moisture to fabric while you are pressing. Why do most fabrics press better when moisture is applied? What happens if too much moisture is added during pressing? [NOTE TO TEACHER: Use the steam iron and a damp press cloth to apply moisture while pressing.]
Identify procedures for pressing with a steam iron (C-K)	Watch as your teacher shows you how to press using a steam iron. What would happen if the steam iron was held on the fabric too long? [NOTE TO TEACHER: See lesson on pressing equipment, pp. 143-145, for review of steam irons.]
Practice pressing with a steam iron (P-GR)	Practice pressing samples of fabric using a steam iron. Ask your teacher for help if you have difficulty.
	Show your class how to press using a steam iron. Ask your classmates and teacher for suggestions on how you can improve the way you use a steam iron for pressing.
Cite the purposes for using a press cloth (C-K)	Listen as your teacher explains the reason for using a press cloth. Should a press cloth be used damp or dry? How does a press cloth help protect the fabric? Can the press cloth be used more than once? Why is it important to keep the press cloth clean? [NOTE TO TEACHER: Some alteration shops use a telfon plate that attaches to the bottom of the iron instead of a press cloth. If cheesecloth or muslin is used as a press cloth, it will have to be washed thoroughly to remove all starch. See lesson on pressing equipment, p. 140, for review on press cloth.]
Observe method of using a dry press cloth (P-P)	Watch as your teacher shows you how to use a dry press cloth. When should a dry press cloth be used?
Try using a dry press cloth (P-GR)	Practice using a dry press cloth on samples of fabric. Ask your teacher for help if you have difficulty. [NOTE TO TEACHER: Have students practice using a press cloth with the iron in the OFF setting.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Try using a dry press cloth while pressing with a steam iron. Have your teacher check your work.
Identify the method for using a damp press cloth (C-K)	Watch as your teacher shows you how to use a damp press cloth. When should a damp press cloth be used? What happens when the press cloth is too wet?
Practice procedures for using a damp press cloth (P-GR)	Attempt to use a damp press cloth under your teacher's supervision. How did you dampen the press cloth?
	Show a classmate how to use a damp press cloth. Ask your classmate to note any errors you make in using the press cloth.
State reasons for using different pressing surfaces (C-K)	Look at several pressing surfaces. Note the differences in size. Note whether each is placed on a table top or on the floor. Review the names of the pressing surfaces. [NOTE TO TEACHER: See lesson on pressing equipment, p. 150, for review on pressing surfaces.]
	Watch as your teacher shows you uses for each pressing surface (ironing board, sleeve board, press board, skirt board, point presser, tailor's ham, seam roll, press mitt). Which surfaces are used for pressing long straight seams? Which surfaces are used to press curved areas of garments? Which surfaces are used to press hard-to-reach places? [NOTE TO TEACHER: You may want to demonstrate use of only one pressing surface at a time. When students gain skill with that surface, introduce another until all are mastered.]
Explain uses for each pressing surface (C-C)	Sit in a large circle in view of pressing surfaces in the clothing service laboratory. As your teacher points to each pressing surface, the first person gives its name and describes one of its uses. Continue around the circle. When a student cannot name the pressing surface or its use, he or she must leave the circle. If a student out of the circle can supply the information she or he may take the other student's place in the circle. Continue around the circle several times until most of the uses of each pressing surface have been named.
Explain pressing techniques (C-C)	Look at several garments to identify areas that should be pressed. Name the pressing equipment that would be used for each area. In your own words describe the method for pressing each area.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Note methods for pressing straight seams (C-K)	Look at a sample of a straight seam. Watch as your teacher shows you how to press straight seams open. How does pressing straight seams open improve the appearance of a garment? Why should straight seams be pressed open during construction of a garment?
Try pressing straight seams (P-GR)	Practice pressing straight seams open on fabric samples. Ask your teacher for help if you have difficulty. When can straight seams be pressed open on the ironing board? When is a seam roll needed? When is a sleeve board used? When would you use a skirt board? a press board? Try pressing straight seams open on a sample garment. Have your teacher check your work. [NOTE TO TEACHER: Sample garments may be purchased at rummage sales and used for a variety of purposes in the classroom. Select garments which are simple in design so that students can recognize construction details to be pressed.]
Name equipment needed to press darts and curved seams (C-K)	Listen as your teacher points out equipment needed to press a dart or curved area. Name the equipment needed to press darts and curves.
Observe procedures for pressing darts and curved seams (P-P)	Watch as your teacher shows you how to press darts and curved seams using a tailor's ham. What is the reason for using a tailor's ham? Which way should a dart be pressed? Why must darts in heavy fabric be slashed and pressed open? Why must curved seams be clipped along the edges before pressing? What would happen if the curved seam edge was clipped too far?
Practice pressing techniques for darts and curved seams (P-GR)	Follow steps for pressing darts and curved seams on fabric samples as your teacher shows you each step. Practice pressing darts and curved areas on sample garments. Have your teacher check your work.
State equipment needed for pressing sleeves (C-K)	Look at a garment with sleeves. Listen as your teacher explains why a sleeve board or seam roll is used to press sleeves. Why would the sleeve seam be hard to press without a sleeve board or seam roll? Why should you press the sleeve seam open?
Cite methods for pressing sleeves (C-K)	Watch as your teacher shows you how to use a sleeve board to press a sleeve seam. Watch as your teacher shows you how to press a sleeve using a seam roll. When should you press the sleeve seam during the construction of a garment?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Explain procedures for pressing sleeves (C-C)	Describe in your own words how to press a sleeve using the sleeve board. Explain how to press a sleeve using a seam roll.
Follow procedures for pressing a sleeve (P-GR)	Practice pressing sleeve seams on samples provided by your teacher. Have your teacher check your work.
Observe procedures for pressing points and details (P-P)	Examine a garment with a pointed collar. Watch as your teacher shows you how to press points and small details with a point presser. How does a point presser make pressing points and small details easier? Why must these areas be pressed?
Attempt to press points and small details using a point presser (P-GR)	Using fabric samples, practice pressing points or small details with a point presser as your teacher shows you each step.
	Take turns showing your class how to press points or small details on fabric samples. Have your teacher check your work.
Note reasons for using a needle board (C-K)	Look at samples of fabric with a nap. Listen as your teacher explains why a needle board is used to press fabrics with a nap. What is meant by "nap?" What could happen if a needle board is not used to press napped fabrics? [NOTE TO TEACHER: Fabrics samples could include velvet, corduroy, or suede.]
	Look at samples of fabric prepared by your teacher. Select the samples that would require use of a needle board for pressing. [NOTE TO TEACHER: Prepare samples of fabric with a nap, and samples of fabric without a nap.]
Observe procedures for pressing napped fabrics (P-GR)	Watch as your teacher shows you how to press using a needle board. Which side of the needle board faces up? Which side of the fabric is placed on the needle board?
Follow procedures for pressing napped fabrics (P-GR)	Practice pressing fabric samples using a needle board. Have your teacher check to see if you are using proper pressing techniques.
Identify reasons for pressing hems (C-K)	Look at a hem in a garment and listen as your teacher explains why hems should be pressed. How does pressing a hem improve the appearance of a garment?
Note procedures for pressing hems (C-K)	Watch as your teacher shows you how to press a hem. Which pressing surfaces can be used for pressing hems? Which side of the fabric is pressed first? Why must all pins be removed before pressing a hem?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Practice pressing hems (P-GR)	Follow steps for pressing a hem on sample fabric as your teacher shows you each step.
	Practice pressing hems on sample garments. Have your teacher check your work.
Cite how to use the apparel steamer (C-K)	State how to use the apparel steamer after watching your teacher do each step.
	Help your teacher make a chart on how to use the apparel steamer. Include steps such as: (1) Place the garment to be pressed on the pressing buck. (2) Lower the head by pressing either a foot pedal or closing button. (3) Raise the head and apply the vacuum dryer.
Describe how to use the apparel steamer (C-C)	Take turns describing to the class how to use an apparel steamer. Explain why each step is taken in operating the apparel steamer.
Label items that are pressed using an apparel steamer (C-K)	Label each article of clothing in a display as to whether or not they should be pressed by an apparel steamer. [NOTE TO TEACHER: Include long, straight seams and slacks to be pressed by the apparel steamer. Display skirts, jackets, and other items that have details on them to be pressed with a hand iron. Labels can be small squares of construction paper which students can place on garments they identify as needing to be pressed by the apparel steamer.]
Practice using the apparel steamer (P-GR)	Repeat each step in using the apparel steamer as your teacher completes the step. [NOTE TO TEACHER: Demonstrate steps for each student to follow. Repeat as needed.]
	Press a pair of slacks using the apparel steamer under your teacher's supervision.
	Take turns practicing the use of the apparel steamer on various articles of clothing with assistance from your teacher if necessary.
	Draw a number provided by your teacher. Select the garment from the display with the same number. Press the garment with the apparel steamer.
Use the apparel steamer to press a garment (P-M)	Press a garment using the apparel steamer without assistance.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Use the apparel steamer when appropriate to press garments in the clothing service laboratory.
Perform all pressing techniques correctly (P-M)	Press details of garments under construction following the correct pressing techniques. Set steam or dry iron to correct temperature. Protect fabric with a press cloth. Press straight seams open. Use a tailor's ham to press darts and curved seams. Use a sleeveboard or seam roll to press sleeves. Press points and small details with a point presser. Use a needleboard to press napped fabrics. Follow the correct steps for pressing hems on an ironing board, sleeve board, skirt board, or press board.

WORDS TO KNOW
About Pressing
(Teacher Information Sheet)

press - to smooth or flatten clothes with an iron.

iron - tool with a flat surface that is heated to remove wrinkles from fabric. An iron may make dry or steam heat. A dial is set to get the right temperature. Some irons can spray extra water on the fabric when needed.

press cloth - a piece of fabric that is put in between the fabric and the iron.

ironing board - a long narrow padded board. It is used as a work surface for ironing or pressing. It usually has folding legs which can be adjusted in height.

tailor's ham - a ham-shaped cushion. It is used for pressing curved and shaped parts of garments.

sleeve board - a small ironing board used for pressing sleeves and short seams.

point presser - a wooden board with a pointed end. It is used to press seams and points in garments.

needle board - a strip of canvas covered with fine upright wires. It is used for pressing napped and pile fabrics like corduroy, velvet, and furlike fabrics.

pounding block - a shaped wooden block. It is used to pound and flatten seams and edges of thick, bulky fabrics.

press board - a small table-top ironing board.

skirt board - a table-top ironing board for skirts.

press mitt - a small padded mitt that slips over the hand. It is used to press and shape curved details on garments.

seam roll - a long padded cushion. It is used to press seams and shape curves.

apparel steamer - a large piece of equipment used for pressing. The top of the apparel steamer is lowered to press the garment by pressing a small foot pedal or button.

GARMENT CONSTRUCTION

Basic Construction Techniques

COMPETENCY: Ability to apply basic construction techniques to making garments.

SUB-COMPETENCIES: Ability to perform basic construction techniques.

Ability to attach fasteners to garments.

Ability to select and apply appropriate hem finishes.

WORDS TO KNOW:

garment fastener
snap
hook and eye
sew-through button
shank button
stayed-button
overlap
clean-finished hem finish
zigzagged hem finish
machine-stitched hem
machine blind-hem
hand hem
rolled hem

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Cite procedures for sewing straight seams (C-K)	Watch as your teacher shows you how to sew straight seams. How were the two layers of cloth placed together? How were the pieces placed under the presser foot? How was the fabric guided for stitching? How was stitching kept the same width from the edge?
Attempt to stitch straight seams (P-GR)	Stitch two pieces of fabric together using a straight seam. Practice until you can keep ends and edges together and keep the stitching the desired distance from the edge. Remember to backtack at the beginning and end of each seam.
Cite procedures for sewing curved seams (C-K)	Watch as your teacher shows you how to stitch curved seams. How are edges placed together? How is fabric guided under presser foot? If an outward curve and an inward curve must be sewn together, which one should be clipped?
Attempt to stitch curved seams (P-GR)	Practice stitching curved seams until you can keep ends and edges together and keep stitching desired distance from edge. Did you remember to release pressure slightly from presser foot when sewing sharp curves? Did you use your hands to guide fabric along curve?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Cite procedure for turning corners (C-K)	Watch as your teacher shows you the procedure for turning corners on a lockstitch sewing machine. Was the needle up or down when the corner was turned? Was the presser foot up or down when the corner was turned? How was the marked turning point reached?
Attempt to turn corners when sewing (P-GR)	Practice turning corners similar to those found in garment collars, cuffs, necklines, etc. Did you use a rocking action on the treadle to reach the marked corner? Did you remember to have the needle in the fabric and raise the presser foot to turn the corner?
State procedure for sewing darts (C-K)	Watch as your teacher shows you how to sew darts. What marked the end of the dart? What marked the point of the dart? How was the dart in the fabric formed? Where should you start sewing? Where should you stop sewing? Why should you sew slightly beyond the dart point?
Attempt to stitch a dart (P-GR)	Get marked fabric samples from your teacher. Locate the end notches and point of the dart. Fold the fabric matching notches together. Stitch from notches slightly past point. Practice until you can observe markings and keep stitching straight.
State procedure for taking in ease (C-K)	Watch as your teacher shows you how to take up ease. How can you tell when one fabric piece needs to be eased? Which fabric piece should be placed on the bottom? How is fabric controlled while stitching?
Attempt to ease one piece of fabric to another (P-GR)	Get marked fabric scraps from you teacher. Practice matching markings and stitching to ease the longer piece to fit the shorter piece. Did you match the edges of the fabric pieces? Did you place the piece to be eased on the bottom? Did you pull the top piece of fabric if needed? Did you match notches together. Practice until you can ease fabric evenly. [NOTE TO TEACHER: Learning to ease fabric requires much practice. Allow plenty of time and scraps for students to work with.]
Define garment fasteners (C-K)	Listen as your teacher tells you what garment fasteners are. Why are garment fasterners used? Do all garments have fasteners? What is a garment fastener?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Name various kinds of fasteners (C-K)	Look at samples of fasteners displayed on the bulletin board as your teacher explains their uses. [NOTE TO TEACHER: Fasteners should include a sew-through button, a shank button, a stayed-button, a snap, and a hook and eye.] Name each garment fastener as your teacher points to it. How are fasteners held in place on a garment? Where are they placed on a garment?
	Reach into a grab bag and draw out a garment fastener which has been sewn to a fabric sample. Name the type of fastener you drew.
Identify purposes of hooks and eyes (C-K)	Listen as your teacher explains the purposes of hooks and eyes. Why are hooks and eyes used? Do all garments have hooks and eyes?
State procedures for sewing on a hook and eye (C-K)	Watch as your teacher shows you how to sew on a hook and eye. When should a hook and eye be used? How is placement of the hook and eye determined? How is hook and eye placement marked? Which part of the hook and eye is sewn on first? What kind of needle is used? [NOTE TO TEACHER: Remind students that there are two types of eyes—round ones and flat ones. Round eyes work best on neck edges while flat eyes are best suited for waistbands. Hooks and eyes come in various sizes, but the largest size will be easiest for the students to work with while they are learning. Reduce the size hooks and eyes used until students can sew on small ones as well as large ones.]
	Arrange cards showing the correct way to sew on a hook and eye. [NOTE TO TEACHER: Use illustrations on p. 290 to make cards.]
Explain the steps in attaching a hook and eye (C-C)	In your own words explain the steps in sewing on a hook and eye.
Attempt to attach a hook and eye (P-GR)	Practice attaching hooks and eyes to fabric samples. Have your teacher check your work. [NOTE TO TEACHER: Braille labels placed on containers large enough to hold buttons, hooks and eyes, and snaps are an aid to the blind student.]
Note the purpose of snaps (C-K)	Look at sample garments that have snaps as your teacher explains the reasons for using snaps. How are the snaps held in place? When should a snap be used on a garment?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Identify procedures for attaching a snap (C-K)	Watch as your teacher shows you how to sew on a snap. Which part of the snap is sewn on first? What kind of needle is used to sew on the snap? (See p. 291.)
Practice attaching a snap (P-GR)	Practice attaching a snap to sample fabric as your teacher shows you each step. Which section of the snap is sewn on the overlap? When it is moved from one hole to the next, why does the needle have to pass under the snap? Should you sew all the way through the hole and fabric when attaching the snap to the overlap? [NOTE TO TEACHER: Have students start with large snaps. Decrease size as students gain skill and confidence.]
	Divide into teams of two and take turns sewing on a snap. Check your teammate for errors.
	Take turns showing your classmates how to sew a snap onto a fabric sample.
Cite the purposes of buttons (C-K)	Listen as your teacher explains the uses of buttons. Where are buttons usually located on a garment? Why must buttons be sewn on securely? What would happen if the button was too large for the buttonhole? What would happen if the button was too small for the buttonhole?
Identify various types of buttons (C-K)	Look at pictures of a shank button, a sew-through button, and a stayed-button. Repeat the name of each button as your teacher says it. Name the type of button as your teacher holds the button up. [NOTE TO TEACHER: Include shank, sew-through, and stayed-buttons in various colors and sizes.]
	Draw a button from a dish of buttons. Tell your classmates the name of the button.
Note how to attach a sew-through button (C-K)	Watch as your teacher shows you how to sew on a sew-through button. Why must the button never be attached tight to the fabric? How can you tell how long the shank should be? What is the shank made of? (See p. 292.)
Practice attaching a sew-through button (P-GR)	Follow the steps for attaching a sew-through button to a fabric samples as your teacher shows you each step. Have your teacher check your work.
	Practice attaching sew-through buttons on sample garments. Why is it important to sew the buttons on in the right location? What happens when buttons are sewed on too tightly?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Identify procedures for attaching a shank button (C-K)	Observe as your teacher shows you how to attach a shank button. Why should the stitches sewn through the built-in shank be as small as possible? Why should the threads attaching the button be parallel to the opening edge? (See p. 292.)
Practice attaching a shank button (P-GR)	Follow steps for attaching a shank button to a fabric sample as your teacher shows you each step. Have your teacher check your work. Practice sewing shank buttons on sample garments. Why is the thread fastened off on the underside of the fabric?
Note the purposes of a stayed-button (C-K)	Listen as your teacher describes a stayed-button. What kinds of fabric would stayed-buttons be used on? What is used behind the button to reinforce it?
Identify a stayed-button (C-K)	Look at a sample garment that has a stayed-button. What kind of fabric is the sample garment made of? Why was a stayed-button used on the sample garment?
Observe procedures for attaching a stayed-button (P-P)	Watch as your teacher shows you how to attach a stayed-button. Which side of the fabric is the shank on? (See p. 292.)
Practice attaching a stayed-button (P-GR)	Follow the steps for attaching a stayed-button as your teacher shows you each step. Have your teacher check your work. Practice attaching a stayed-button on sample garments. Which button should be flat against the fabric?
Gain speed in attaching garment fasteners (P-M)	Replace garment fasteners on garments used in class or garments collected for welfare.
Identify buttonhole placement marks (C-K)	Watch as your teacher draws lines on the chalkboard to show how buttonholes are marked in garment factories. Where should you start stitching? Why must you be careful to be sure the garment is straight before stitching? Why is it important to make a test buttonhole before you start?
Attempt to make buttonholes (P-GR)	Watch as your teacher shows you how to make buttonholes on the sewing machine. How do you position the buttonhole for stitching? How do you remove your work from the machine? Attempt each step in making machine buttonholes as your teacher tells you what to do.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Make buttonholes by machine (P-M)	Practice making buttonholes in the clothing service laboratory until you can make them without help. Make buttonholes as needed for projects in the clothing service laboratory.
Explain how to prepare a garment for zipper insertion (C-C)	Watch as your teacher shows you how to get ready to put a zipper in a garment. How can you tell where the bottom of the zipper will come? Why should you backstitch the seam below where the bottom of the zipper will come? Why should you use a long basting stitch for the rest of the seam? Why should you clip the bottom basting thread every inch? Why should the seam be basted open?
Attempt to prepare a garment for zipper insertion (P-GR)	With your teacher's help sew the garment seam to zipper placement mark, backtack, then baste the remaining part of the seam.
Describe steps for putting in a centered zipper (C-C)	Watch as your teacher shows you how to put in a centered zipper. What machine foot should you use? Why is the open zipper machine basted to the seam allowances? Why should you baste the zipper in place? How far from the seam should you baste? Why is it important to keep your basting straight? Where should you start stitching to sew the centered zipper? What length stitch should you use? Why should you stitch just outside your basting? Where should you start stitching the other side of the zipper? At what points must you move the zipper foot to the other side of the needle? How do you remove the basting stitches? What should you do with thead ends?
Attempt putting in a centered zipper (P-GR)	With your teacher's help try to put in a centered zipper. Listen as your teacher tells you and shows you each step, then do it. Keep trying until you get the zipper in.
Describe how to put in a lapped zipper (C-C)	Watch as your teacher shows you how to put in a lapped zipper. Why is the zipper basted only to the right seam allowance? How is the first side of the zipper sewn in? Why should the zipper be basted to the garment after the first side is sewn? Where do you stitch on the outside of the garment to form the lap? How do you move the basting?
Attempt to put in a lapped zipper (P-GR)	With your teacher's help follow the steps for putting in a lapped zipper.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Put in zippers without assistance (P-M)	Practice putting in zippers on class projects until you can do it without help. Replace zippers needed when altering garments in the clothing service laboratory. Ask for help when you are not sure what to do.
Note reasons for hems (P-P)	Look at hems in garments provided by your teacher. Why do garments need hems? Are all garments hemmed?
Identify hem finishes (C-K)	View a transparency showing hem finishes. (See p. 293.) Listen as your teacher describes each hem finish. Why are hem finishes needed? How can you decide which hem finish is needed on a garment? [NOTE TO TEACHER: Hem finishes should include clean finished and zigzagged.]
Cite steps in making a clean-finished hem (C-K)	Watch as your teacher shows you how to make a clean-finished hem. What length stitches are used? What color of thread is used? When would a clean-finished edge be used on a garment? What type of finish would you *not* use on a clean-finished edge?
Explain steps in making a clean-finished hem (C-K)	In your own words describe how to make a clean-finished edge. What type of fabric would the clean-finished hem be suitable for?
Attempt to make a clean-finished hem finish (P-GR)	Practice making a clean-finished edge on fabric samples. Have your teacher check your work.
Note the steps in making a zigzagged hem finish (C-K)	Watch as your teacher shows you how to make a zigzagged hem finish. What length stitches are used? When would a zigzagged hem finish be used? What setting must the sewing machine be set on?
Describe steps in making a zigzagged hem finish (C-C)	In your own words explain how to make a zigzagged hem finish.
Practice making a zigzagged hem finish (P-GR)	Practice making a zigzagged hem finish on fabric samples. Have your teacher check your work.
Cite reasons for using the domestic sewing machine to make hems (C-K)	Look at a machine-stitched hem on denim jeans. Listen as your teacher explains why the domestic sewing machine was used to make the hems on very heavy cloth. Why must the hem allowance be as small as possible? Why was the hem edge turned under two times? Why is a stronger hem needed on heavy cloth?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Look at a machine blind-stitched hem. Do the stitches show on the right side of the garment? Can you see the line of stitching along the hem edge?
Identify steps in making a hem using a domestic sewing machine (C-K)	Look at a handout showing the steps for putting in a hem using the domestic sewing machine. Watch as your teacher shows you how to make a machine-stitched hem on heavy cloth using the domestic sewing machine. What size stitches should be used? How is the color of thread chosen? [NOTE TO TEACHER: Demonstrate how to make a domestic machine-stitched hem on heavy denim suitable for jeans. See p. 294.] Arrange cards illustrating the steps for putting in a hem using the domestic sewing machine in order of their performance. [NOTE TO TEACHER: Use the pictures shown on the handout on p. 294 to make cards.]
	Watch as your teacher shows you how to make a machine blind-stitched hem. How was the hem edge prepared? How is the hem guided under the machine foot? How is the blind-stitch formed? What happens if the hem is fed too far to the right? too far to the left?
Practice making a hem using the domestic sewing machine (P-GR)	Practice making straight stitched and blind-stitched hems using the domestic sewing machine on fabric samples. Did you turn the hem edge under two times on heavy fabric such as denim? Do all fabrics need to have the hem edge turned under two times? [NOTE TO TEACHER: Many ready-mades, especially knits, don't turn under the edge at all.] Have your teacher check your work.
Note steps in putting in a hem by hand (C-K)	Watch as your teacher shows you how to put in a hem by hand using a hemming stitch. Look at handout as your teacher describes each step. How is the hem prepared for hemming? What size needle is used? How long are the stitches? Do the stitches show on the right side of the garment? What type of cloth would each method be used on? [NOTE TO TEACHER: Charts could be made using a heavy fabric such as burlap. A large upholstery needle and string could be used to teach the mechanics of each stitch.]
Explain steps for putting in a hem using the hemming stitch (C-C)	Look at a step for putting in a hem by hand using the hemming stitch shown on your handout as your teacher points to it. Describe what is being done in the step. [NOTE TO TEACHER: See p. 295 for illustration of hem.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Try to put in a hem using a hemming stitch (P-GR)	Attempt to put in a hem by hand using a hemming stitch. Have your teacher check your work. [NOTE TO TEACHER: Start students with a loosely woven fabric like burlap, yarn and tapestry needle. Reduce the scale of fabric, thread, and needle until students can sew with regular fabric, sewing thread, and needle.]
Identify a hand-rolled hem (C-K)	Look at a garment with a hand-rolled hem. Listen as your teacher describes the uses of a hand-rolled hem. Why is this method used on sheer cloth?
Cite method of making a hand-rolled hem (C-K)	Look at a transparency showing the steps in making a hand-rolled hem. Listen as your teacher describes each step. What color of thread is used? Why is the edge machine stitched before turning it under? In your own words tell classmates how to make a hand-rolled hem. [NOTE TO TEACHER: Transparency is on p. 296.]
Attempt to make a hand-rolled hem (P-GR)	Follow the steps in making a hand-rolled hem as your teacher shows you each step. Have your teacher check your work.
	Practice making the hand-rolled hem on three fabric samples. Give the samples to your teacher to check.
Practice making hems (P-GR)	Draw a card showing a machine or hand-sewn hem. Make the hem shown on the card on garments provided by your teacher, including applying the proper edge finish. [NOTE TO TEACHER: Include the hand-rolled hem, hems made with the hemming stitch, and domestic sewing machine.]
	Make the hemming stitch and the hand-rolled hem on fabric samples to gain skill and speed in performing them.
Complete steps in making hems (P-M)	Use the machine-stitched hem, machine blind-stitched hem, hand-stitched hem, and rolled hem when appropriate on garments constructed, altered, or repaired in the clothing service laboratory.
	Work to improve the quality of your hems each time you stitch a hem. Was an appropriate edge finish used. Was an appropriate hem stitch chosen? Do stitches show on the right side?
Determine if correct hemming methods have been used (C-An)	Look at completed hems to determine if correct procedures were used. Are stitches the correct length? What color of thread has been used? Was the proper hem finish selected?

WORDS TO KNOW

About Basic Construction Techniques

(Teacher Information Sheet)

garment fastener - a device that holds two pieces of a garment together.

snap - two small metal circles that fit together to fasten clothes. One piece has a ball. The other piece has a socket.

hook and eye - a small metal catch (hook) that fits into a small metal loop (eye) to hold clothes together.

sew-through button - a button that has two or four holes through it. It is attached to fabric by sewing.

shank button - a button that has a solid top. It has a raised part underneath (shank) with a hole through it for sewing it to fabric.

stayed-button - a button that is attached to fabric with a small flat button on the other side of the fabric.

overlap - the edge of a garment which laps over another edge. The two edges are held together by fasteners.

clean-finished hem - the cut edge of the garment is machine stitched and turned under before the garment is hemmed.

zigzagged hem finish - the cut edge of the garment is machine stitched and then stitched with a machine zigzag stitch before the garment is hemmed.

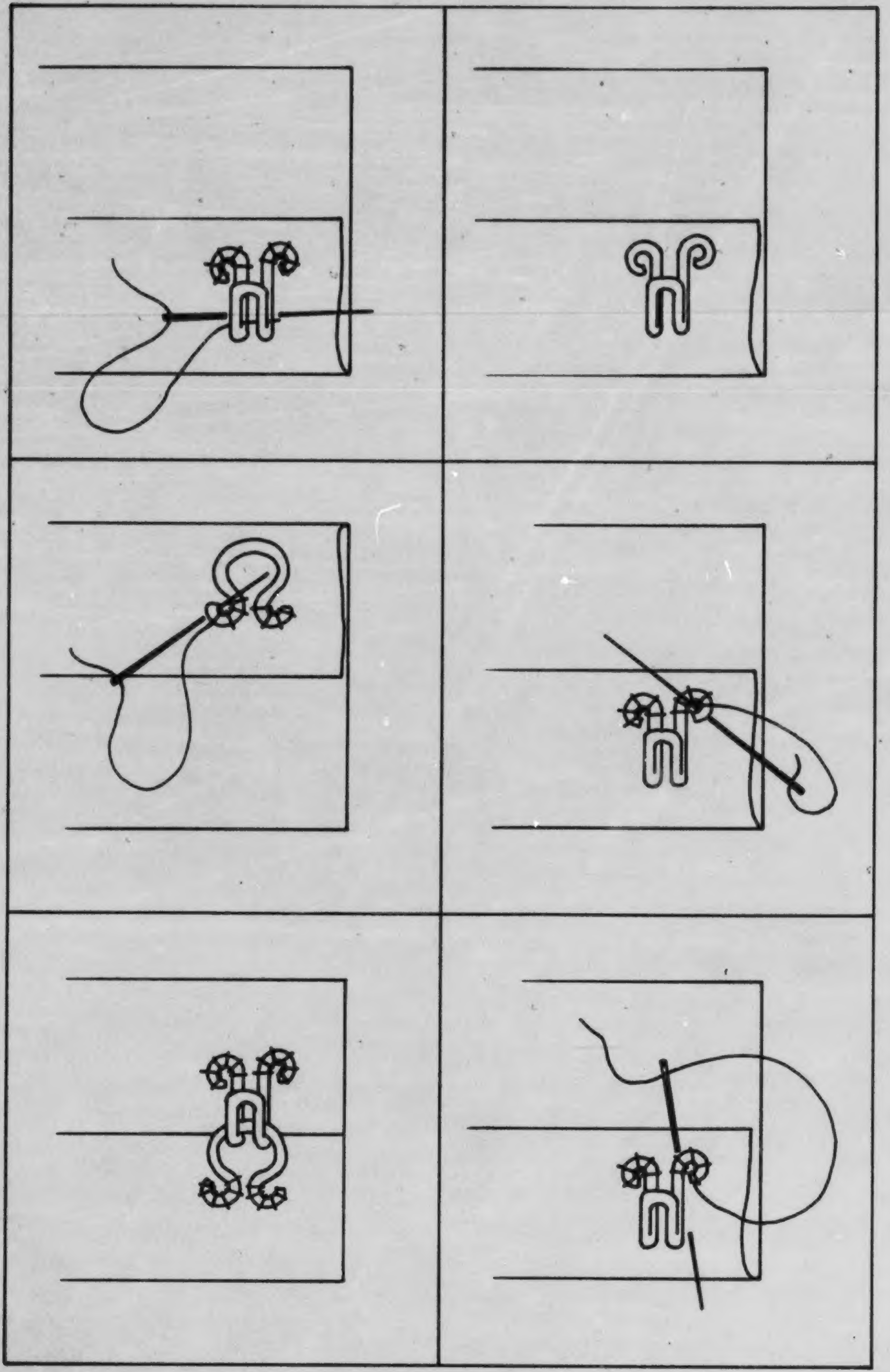
machine-stitched hem - the edge of a garment that is folded back and sewn down using a straight machine stitch.

machine blind-hem - a machine stitch that forms a line of stitching on the hem edge and catches the garment with a stitch that cannot be seen on the right side.

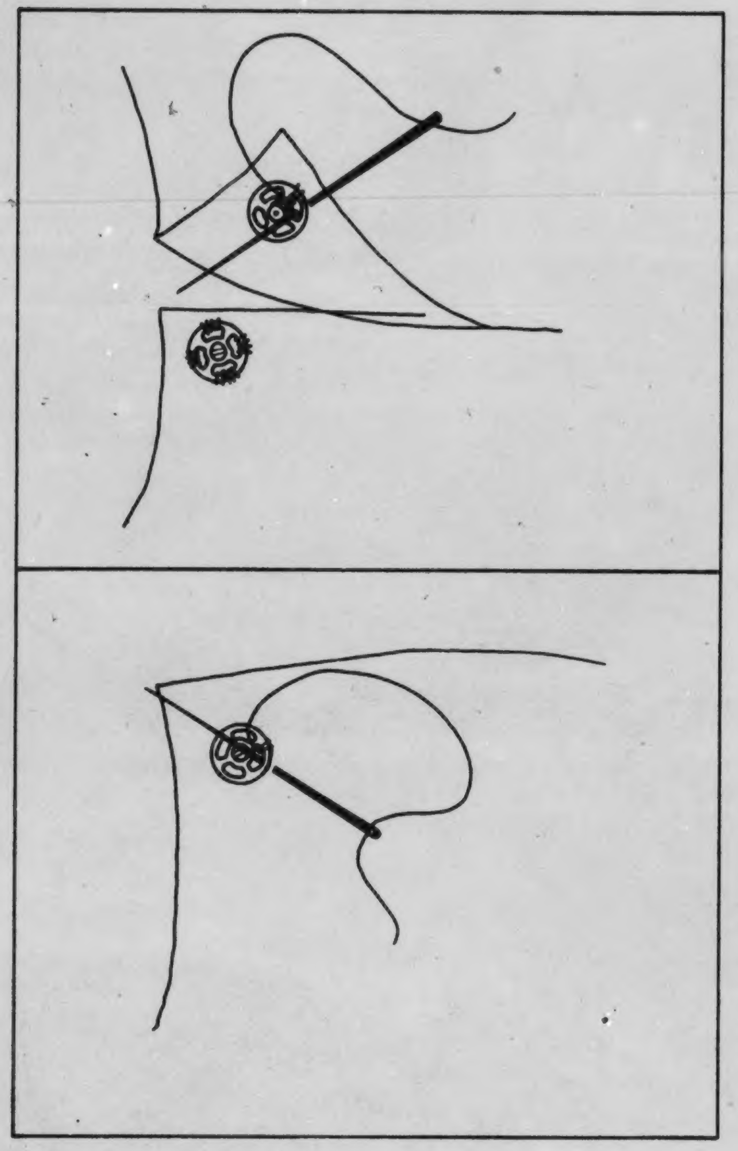
hand hem - the edge of the garment that is folded back and sewn down using a hemming stitch.

hand-rolled hem - the cut edge of the garment is rolled back and sewn down using a hand stitch. It is used on sheer fabrics.

SEWING ON A HOOK AND EYE

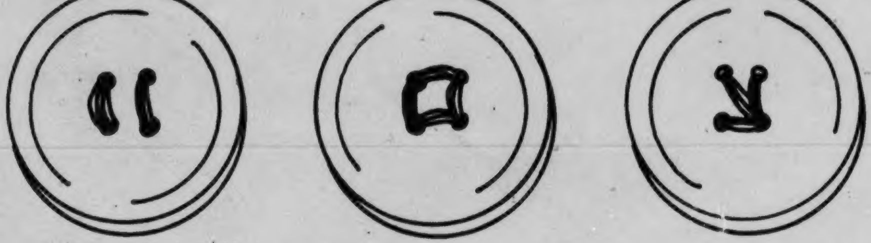


SEWING ON A SNAP

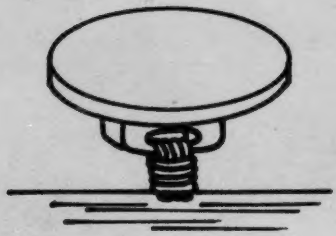


TYPES OF BUTTONS

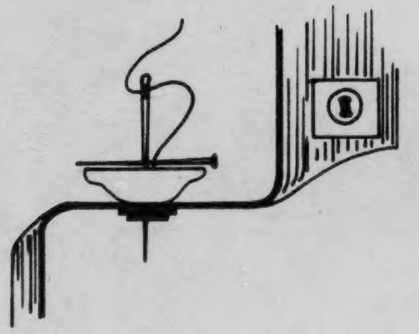
SEW-THROUGH BUTTON



SHANK BUTTON

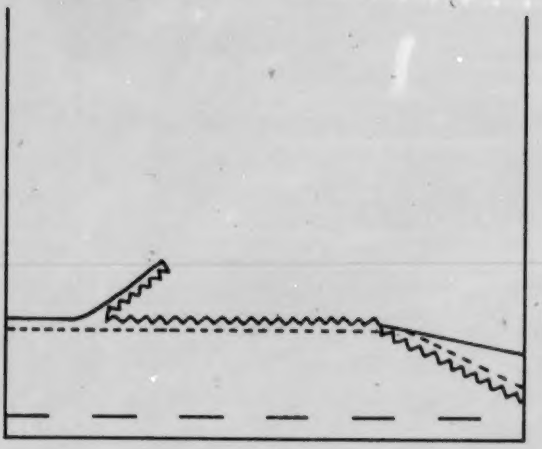


STAYED BUTTON

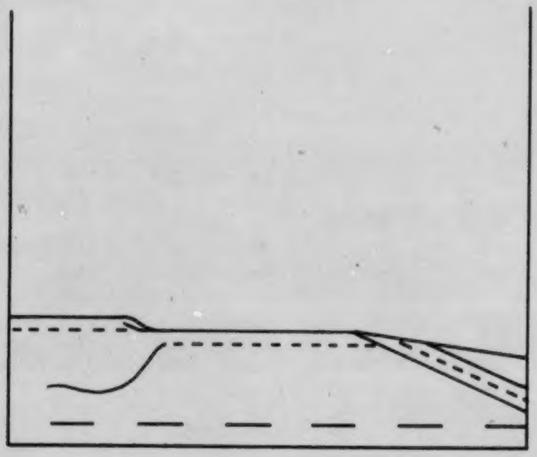


HEM FINISHES
(Transparency)

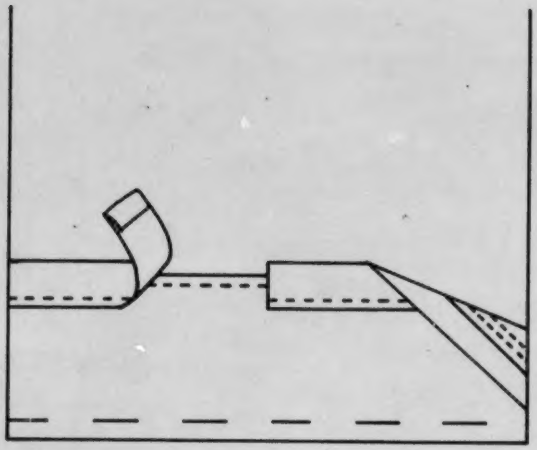
STITCHED AND PINKED EDGE



CLEAN-FINISHED EDGE

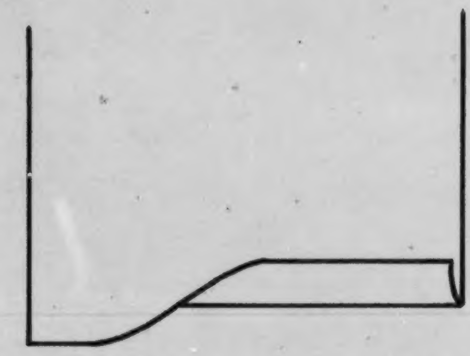


BIAS BINDING

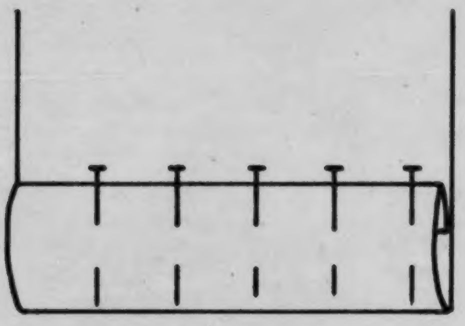


PUTTING IN A HEM USING THE DOMESTIC SEWING MACHINE
(Handout)

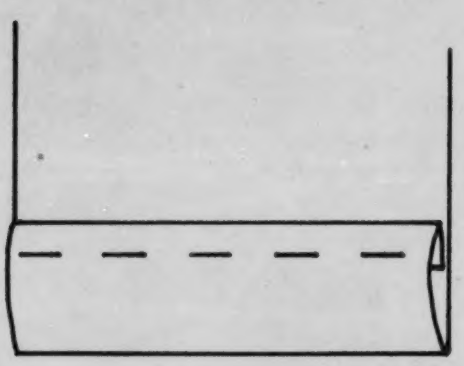
1. Turn hem up ¼-inch and press.



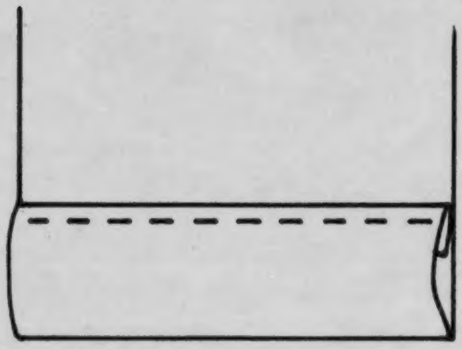
2. Turn hem up again the desired amount and pin.



3. Baste hem across the top and remove pins.

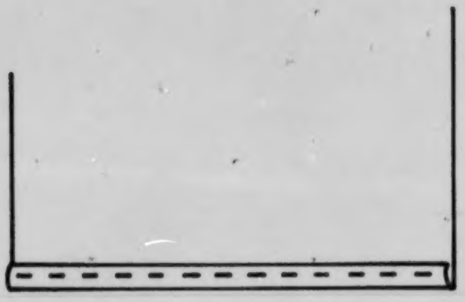


4. Machine stitch across top of hem.

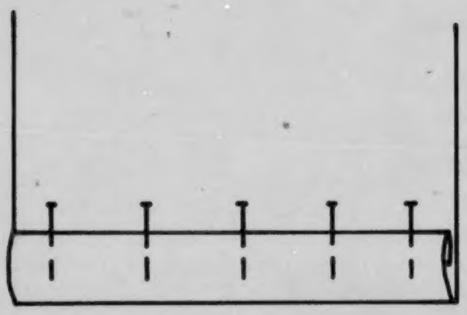


HAND HEM
(Handout)

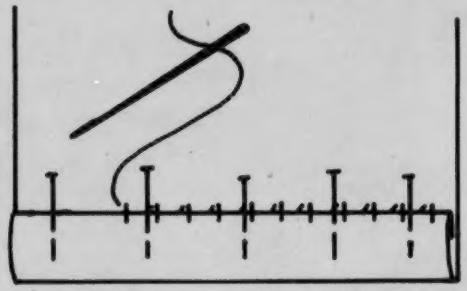
1. Make desired hem finish.



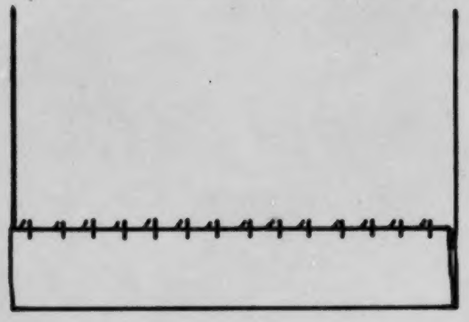
2. Turn hem up and pin.



3. Stitch hem into place using a vertical hemming stitch.

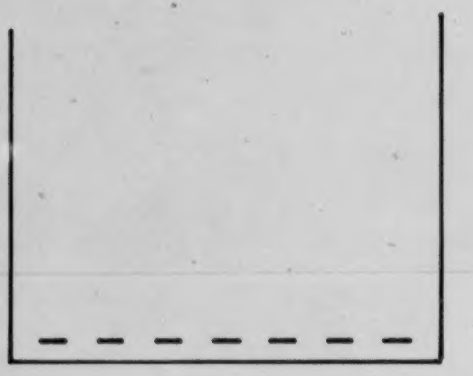


4. Remove pins and press hem.

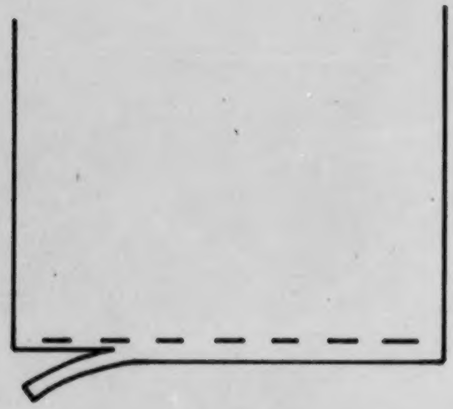


HAND-ROLLED HEM
(Transparency)

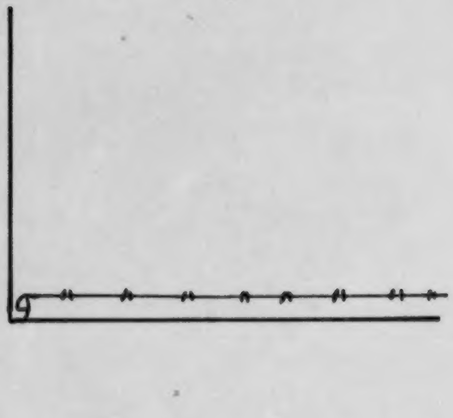
1. Machine stitch 1/8 inch from edge of the cloth.



2. Trim close to stitching.



3. Roll cloth between thumb and forefinger and slipstitch into place.



GARMENT CONSTRUCTION

Assembly Line Production

COMPETENCY: Ability to apply basic construction techniques to making garments.

SUB-COMPETENCIES: Ability to recognize the steps in assembly line production.

Ability to participate effectively in the assembly line production of garments.

WORDS TO KNOW:

- designer
- pattern grader
- marker maker
- spreader
- cutter
- bundling worker
- sewing machine operator
- hand finisher
- presser
- inspector
- bagger
- dart notch
- dart point
- folding notch
- joining notch
- buttonhole mark
- pocket placement hole
- cutting machine
- shade marking
- bundle
- ticket
- get
- sew
- dispose
- incentives

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Cite assembly line techniques (C-K)	Watch a film on the manufacturing of ready-to-wear garments. In what steps did the garments move through the factory? Listen as your teacher describes how garments are made in assembly line production. Why is assembly line production used?
Note jobs available in the garment industry (C-K)	Tour a garment manufacturing plant. Watch the major operations in making apparel, including designing, pattern grading, marker making, spreading, cutting, bundling, sewing, pressing, hand finishing, and inspecting. What jobs are available in a garment factory? View slides of a designer, pattern grader, marker maker, spreader, bundling worker, sewing machine operator, presser, inspector, and bagger. Listen as your teacher describes the duties of each person. [NOTE TO TEACHER: Slides could be taken in a garment factory, or posed in the clothing service laboratory.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Describe tasks involved in each job in a garment factory (C-C)	Play the game, "What's My Job?" to learn about the duties of certain jobs in the garment factory. [NOTE TO TEACHER: See pp. 308-309 for illustrations of garment factory workers for construction of the game, "What's My Job?" Directions for the game are on p. 307.]
Identify parts of a garment factory pattern (C-K)	Look at samples of patterns used in a garment factory. Note the notches in pattern pieces. What does each hole mean? [NOTE TO TEACHER: Include examples of folding notch, joining notch, dart notch, buttonhole mark, pocket placement holes, and dart points. Make patterns out of stiff cardboard. See p. 310 for illustrations.]
Note procedures for joining pattern pieces (C-K)	Listen as your teacher explains how pattern notches and holes are used to join pattern pieces together. How can the holes and notches be used in joining pattern pieces?
	Watch as your teacher shows you how to join pattern pieces by using pattern holes and notches. Are all pattern notches and holes used for joining pattern pieces?
Attempt to join pattern pieces (P-GR)	Practice joining pattern pieces together using notches and holes as guides.
	Practice joining two pieces of fabric together as directed in making a garment in the clothing services laboratory.
Cite procedures for making a marker (C-K)	Watch a demonstration on making a marker. What is a marker? Why should the marker be a little narrower than the fabric? What is the purpose of a marker? Why are pattern pieces arranged before cutting? What is used to trace around the pattern pieces? [NOTE TO TEACHER: A combination of sizes is placed on the marker in order to avoid wasting fabric. The pattern pieces for each size should lay in the same lengthwise position. For example, when making a marker for men's trousers, if using a combination of waist size 36" and waist size 44", the 36" pattern pieces should all be placed in the same direction on the grain (either up or down); the 44" pattern pieces should be placed in the opposite direction. The markers for 36" and 44" waist trousers fit into the standard fabric yardage allowance. Using only 44" waist pattern pieces would waste fabric because the pattern pieces would not fit so well on the fabric. It is best to combine the large and small size pattern pieces rather than group all small size pieces together and all large size pieces together.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Attempt to make a marker (P-GR)	Use patterns provided by your teacher, and practice marking the pieces off on butcher paper using the least amount of paper possible. Trace around pattern pieces with chalk or crayon. Why is it important to place pattern pieces so that the least amount of paper is used? Why is it important for pattern pieces to be on the grain of fabric? [NOTE TO TEACHER: A marker splice is used when working around a flaw in fabric, fabric splices on bolts from the factory, or when overlapping the ends of fabric. Look at the marker layout and find a place where a line can be drawn across the marker wasting as little fabric as possible. It will be necessary to rearrange some of the pattern pieces. Make sure all pattern pieces are on the marker. The overlap in the spliced fabric needed for the pattern pieces is referred to as "pick-up."]
	Practice making a marker. As your teacher gives you several pattern pieces, arrange them on butcher paper using the least amount of paper possible. Do not overlap pattern pieces. Why should the large pattern pieces be placed on the marker first? Have your teacher check your work.
Cite procedures for spreading fabric (C-K)	Observe a demonstration on how to spread fabric by hand. [NOTE TO TEACHER: When spreading fabric, the selvage of the first ply should lay parallel to the edge of the cutting table. The selvages of the other plies should be lined up with the selvage of the first ply. This will give a straight vertical surface which should be kept smooth. The pattern pieces are laid close to the matching selvages to avoid wasting fabric. The uneven selvages on the other side of the fabric are a result of the varying fabric width.] Why is the fabric stacked in layers? Why should the wrinkles be smoothed out? What happens if the fabric is stretched?
Practice spreading fabric (P-GR)	Follow the steps for spreading fabric as your teacher shows you each step. [NOTE TO TEACHER: Steps for spreading fabric by hand: (1) Mark the length of the lay on the cutting table. (2) Unroll some of the fabric from the bolt. (3) Pull fabric along the cutting table to lay mark (the beginning of the fabric should be at the starting lay marker). (4) Place weight on fabric. (5) Straighten and smooth the ply. (6) Cut fabric at the beginning lay mark. (7) Repeat steps until lay is complete, then place the marker on top of lay.] What determines the number of fabric layers used? Why should stripes and plaids match as they go across the table?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Divide into teams of two and practice spreading fabric. Have your teacher check your work. Try to keep the fabric flat and free of wrinkles.
Identify cutting tools used in garment factories (C-K)	Look at pictures of tools used to cut fabric in garment factories. Which cutting tool will be used in the clothing service laboratory? Why is accuracy important in cutting through a number of layers of fabric?
Observe cutting tools used in garment factories (C-K)	Look at a picture of a cutting machine used to cut layers of fabric in a garment factory. [NOTE TO TEACHER: See p. 311 for transparency of cutting machines. Pictures from manufacturers' catalogs could also be used. The layers of fabric being cut are referred to as a "lay" in garment factories.] Listen as your teacher describes the way fabric is cut. Why is it important to keep the layers of fabric flat as they are cut? What would happen if safety rules were not observed?
	Look at shears used for cutting fabric. Listen as your teacher describes the way to use the shears to cut fabric. Are the shears sharp?
Describe the method used for cutting through layers of fabric (C-C)	Explain in your own words how to cut fabric with the cutting equipment you will be using in the clothing services laboratory.
Attempt to cut through several layers of fabric (P-GR)	Practice cutting through several layers of fabric accurately. Use the cutting tool which is available in the VEH laboratory. Compare the top and the bottom layer of fabric with the pattern. Is either layer of fabric larger or smaller than the pattern? What would happen if the layers were not the same size as the pattern?
Identify shade marking (C-K)	Observe a demonstration on shade marking fabric pieces. [NOTE TO TEACHER: Shade marking used in factories include marking parts of the garment with colored chalk, sewing thread into the cloth, attaching pin-tickets by hand, or printing tickets in advance and attaching them by machine.] What is shade marking? Why is shade marking done in a garment factory? What tools are used to do shade marking? What information is included in shade marking? [NOTE TO TEACHER: See p. 312 for explanation of shade marking.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Tell your classmates what is meant by shade marking. Why is it important for sewing machine operators to carefully match shading marks? What will happen if shading marks are ignored?
Explain why shade marking is necessary (C-C)	Look at pieces of fabric that are the same color but of different shades. What would happen if these pieces of fabric were sewn together in a garment? Would you want to buy this garment? How could this be prevented by shade marking?
Define a bundle (C-K)	Listen as your teacher defines a bundle used in a garment factory. State what is meant by the word "bundling" when used in a garment factory. Why are bundles made? Who makes the bundles?
Explain how to make a bundle (C-C)	Watch as your teacher shows you how to make a bundle. In your own words describe how to make a bundle. How many pieces are placed in one bundle? How are the bundles held together? When does bundling take place?
Attempt to make bundles (P-GR)	Practice making bundles from samples of fabric. Have your teacher check your work.
	Practice bundling together matching pieces as your teacher gives you fabric samples cut into different shapes. Check to make sure that all of the pieces match in each bundle.
Identify tickets used in a garment factory (C-K)	Listen as your teacher explains why tickets are used in garment factories. Who receives the ticket first? What information does the ticket include? Where does the ticket go after it leaves the cutting room? What is the ticket attached to after leaving the cutting room? Why do sewing machine operators tear off part of the ticket after finishing their job? [NOTE TO TEACHER: See p. 313 for an explanation of the ticket system used in the apparel industry.]
Note the parts of a ticket (C-K)	Look at a transparency of a sample ticket used in a garment factory. [NOTE TO TEACHER: See p. 314 for sample ticket.] Listen as your teacher explains each part. What information does the ticket tell about each garment in a garment factory?
Explain procedures for using tickets in a garment factory (C-C)	In your own words describe how tickets are used in a garment factory.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Note procedures for attaching tickets to bundles (C-K)	Watch as your teacher shows you how to attach a ticket to a bundle. How is the ticket held on the bundle?
Practice procedure for attaching tickets to bundles (P-GR)	Try attaching tickets to bundles. Have your teacher check your work. [NOTE TO TEACHER: Students may use the bundles they made in a previous learning activity.]
Note the steps followed by a sewing machine operator (C-K)	Watch as your teacher shows you the steps a sewing machine operator goes through in getting and disposing of work. What is meant by get and dispose? Why is the sewing machine operator's work done in steps? Where does the material go after it has been disposed? [NOTE TO TEACHER: Steps usually included in sewing are: get; match pieces; insert; backstitch; sew; stop; remove work; and dispose. See pp. 315-317 for illustrations of get and dispose.]
Cite efficient techniques for handling materials (C-K)	Look at transparencies on charts showing the steps included in handling materials. How does each step affect the sewing machine operator's speed? Why should the sewing machine operator work to gain as much speed and accuracy as possible? [NOTE TO TEACHER: Use illustrations on pp. 315-317 to make transparencies.]
Explain steps followed by a sewing machine operator (C-C)	Arrange pictures of steps followed by a sewing machine operator in handling materials. In your own words describe each step. Why is it important to move both hands at once? Why should you only stop or slow down at certain points?
Practice procedures followed by a sewing machine operator (P-GR)	Follow steps used by a sewing machine operator in handling materials as your teacher shows you each step. How can you increase your speed?
	Practice steps followed by a sewing machine operator in handling materials and sewing. Use bundles of fabric samples provided by your teacher. At the end of the practice session see how many tickets you have. [NOTE TO TEACHER: Give each student several bundles of fabric samples to sew together with tickets attached to each bundle. Remind students to remove a ticket each time they have completed a bundle. Movie theater tickets could be used for this purpose.]
Define the term incentives (C-K)	Listen as your teacher explains the term "incentives." What are incentives? How are incentives used in your school? In your home?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Explain how incentives are used in a garment factory (C-C)	Listen as your teacher explains how incentives are used in a garment factory. What items may be used as incentives? Why are incentives used in a garment factory? [NOTE TO TEACHER: See p. 318 for explanation of incentives used in a garment factory.]
Cite importance of final pressing (C-K)	Review steps for pressing from p. 272. Why is a final pressing necessary on a garment? Who does the final pressing?
State the meaning of garment inspection (C-K)	Listen as your teacher explains why and how garments are inspected. What is a garment inspection? Who makes the inspection? Why is an inspection made? What does the inspector look for?
Identify errors to watch for when inspecting garments (C-K)	Look at samples of common errors in garments including skipped stitches, improper turning of corners, too-wide seams, too-narrow seams, crooked seams, and notches ignored, as your teacher discusses each. How might each of these errors affect the size and appearance of the finished garments? [NOTE TO TEACHER: Use fabric samples with the errors. Mount the fabric samples on fabric board for ease in handling.]
	Look for errors in garments that a garment inspector would look for. [NOTE TO TEACHER: Include errors in garments such as skipped stitches, improper turning of corners, too-wide seams, too-narrow seams, crooked seams, or notches ignored.] How would these errors affect the sale of a garment? Why is final inspection important?
Name projects adaptable to assembly line production (C-K)	Observe a display of projects suitable for assembly line production. Examine projects. Listen to your teacher tell how each project could be made using assembly line techniques. [NOTE TO TEACHER: Project suggestions are listed on p. 319.]
	Name a project to do in class and look at a sample of the project. [NOTE TO TEACHER: Directions for making a tote bag are shown on pp. 320-322.] What steps would be taken to construct the project in class?
Describe assembly line steps needed to complete class project (C-C)	Listen as your teacher describes the assembly line steps needed to complete a class project. In your own words explain what steps will need to be taken to complete the project.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Perform assembly line techniques on a specific project (P-M)	Set up the classroom to use assembly line techniques of making the marker, spreading the fabric, cutting, bundling, stitching, hand finishing, pressing, and inspecting. (1) Use cardboard pattern to make marker. (2) Spread fabric in layers. (3) Use fabric shears to cut through as many layers of fabric at one time as possible. Follow acceptable procedures for cutting. (4) Bundle pieces together. (5) Stitch. (6) Hand finish. (7) Press. (8) Inspect. [NOTE TO TEACHER: Choose simple projects with few parts at first. Increase difficulty of projects as students gain skill and confidence. Assign specific assembly line duties to students according to capabilities. Develop detailed directions for the sewing method each person on the assembly line should use.]
Display desire to follow the correct procedures for assembly line production (A-V)	Use the correct assembly line production procedures when constructing projects. Attempt to follow the method directed exactly. Attempt to increase speed and accuracy when sewing.
Measure progress in using assembly line techniques (P-M)	Let your teacher time your performance to measure for speed and accuracy gained in assembly line production.
Cite the need for having safety rules in a garment factory (C-K)	Listen as your teacher describes accidents resulting from improper use of power sewing equipment. [NOTE TO TEACHER: Obtain clippings from factory safety bulletins for descriptions of accidents.] Why do factories have safety regulations? What happens when safety rules are not observed?
State safety rules to follow in using power sewing equipment (C-K)	Name the safety rules to follow when using power sewing equipment. (See p. 157 for review of safety rules.)
Practice safety rules (P-GR)	Follow safety rules when operating power sewing equipment in the sewing laboratory.
	Participate in a "Safety Contest." The student observing the most safety rules receives a banner. [NOTE TO TEACHER: Other students could receive a ribbon or small award for the safety rules they have observed.]
Choose to follow safety rules while working in the laboratory (A-V)	Exhibit good safety practices by following safety rules in the clothing services laboratory without being reminded.

WORDS TO KNOW
About Assembly Line Production
(Teacher Information Sheet)

designer - a person who designs the garments to be made in a garment factory.

pattern grader - a person who makes a set of patterns in the sizes needed.

marker maker - a person who outlines on marking paper how the pattern pieces should be cut from the fabric.

spreader - a person who spreads fabric in layers for cutting.

cutter - a person who cuts the layers of fabric into garment pieces using a cutting knife or cutting machine.

bundling worker - a person who stacks pieces of a garment to be sewn together.

sewing machine operator - a person who stitches garment pieces together on a sewing machine.

hand finisher - a person who sews on special buttons, tacks, or hems by hand.

presser - a person who presses a garment after it has been sewn.

inspector - a person who checks a finished garment for mistakes.

bagger - a person who prepares garments for shipment to stores. The bagger may fold or hang garments and place them in boxes or in plastic bags.

dart notch - small clips in the edge of fabric showing where to sew the dart.

dart point - a small hole cut into the garment that shows where to end the dart.

folding notch - a clip in the fabric that shows where to fold the piece.

joining notch - a clip in the fabric that shows where to join two pieces together.

buttonhole mark - small holes cut into a garment to show where to place buttonholes.

pocket placement holes - small holes cut into a garment to show where to place pockets.

cutting machine - an electric cutting knife that is used in a garment factory to cut layers of fabric.

shade marking - marking garment pieces to make sure that each part of the garment is joined with garment parts from the same layer of fabric.

bundle - grouping together pieces of material to be sewn together, or a group of completely sewn items.

ticket - a tag which gives information about a garment to be made in a garment factory.

get - the motion the operator goes thru to obtain the next piece of fabric he or she will sew.

sew - stitching two pieces of fabric together.

dispose - the motion the sewing machine operator goes through to get rid of work after sewing is completed.

incentives - something used to try to get the worker to do more work.

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"WHAT'S MY JOB?"

(Teacher Information Sheet)

Twenty-one cards are made with sketches of seven jobs in the garment industry on one side. Copy the job illustrations three times for the correct number of cards and attach to index cards. Job titles may be covered before copying if students would be able to read them.

Directions: The class will be divided into two teams. Cards are shuffled and stacked face down on a desk or table. Each team alternately selects a card from the stack and turns the card over to view the drawing. The team must then name the job displayed by the sketch on the card. If the team does not know the answer, the question automatically goes to the other team. Each team gets one point for each correctly answered question, until all the cards are used.

HAND FINISHER

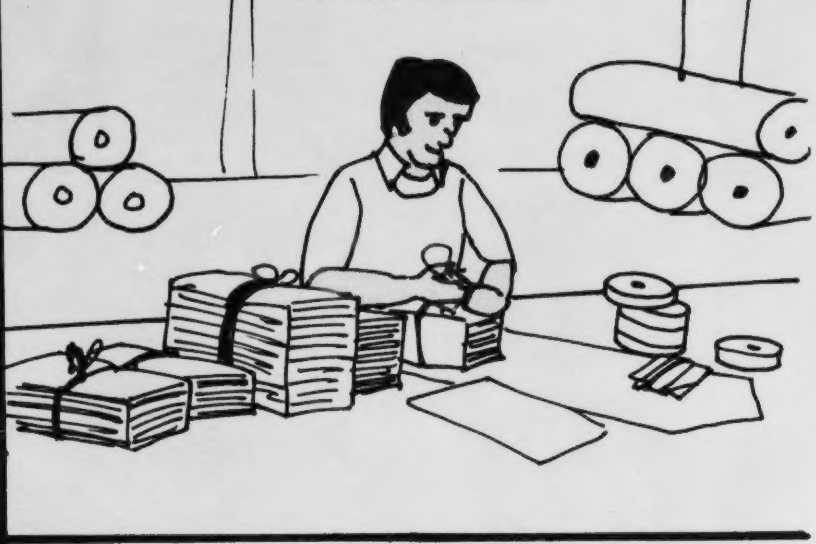
MACHINE OPERATOR

PRESSER

INSPECTOR

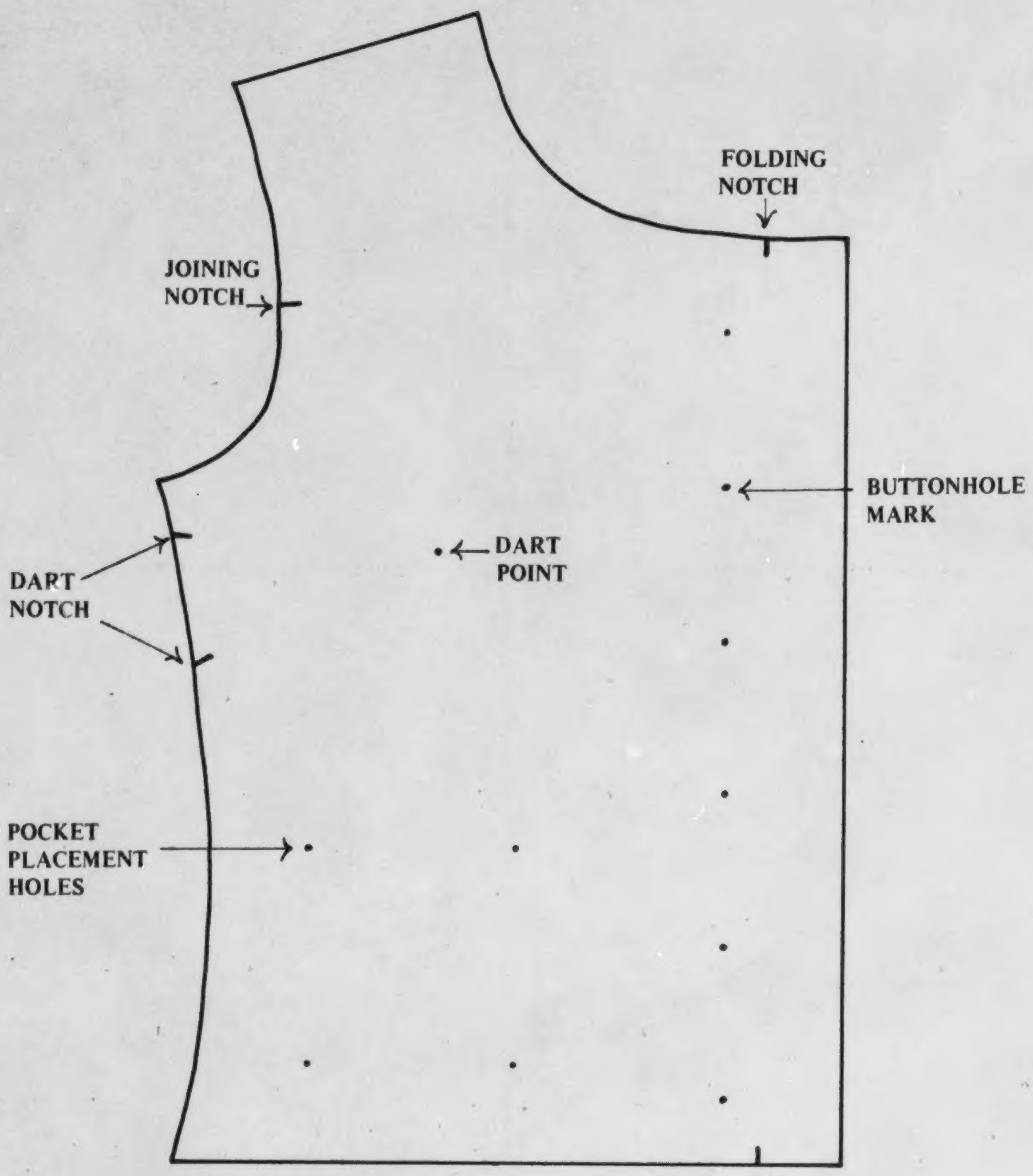
MARKER MAKER

BUNDLING WORKER

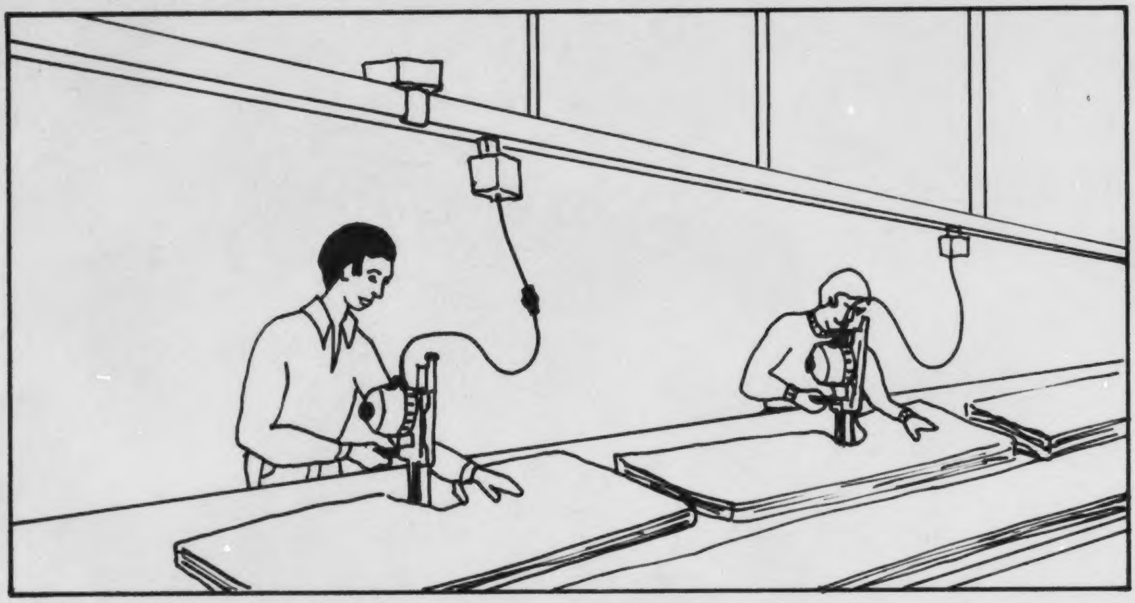


SPREADER AND CUTTER

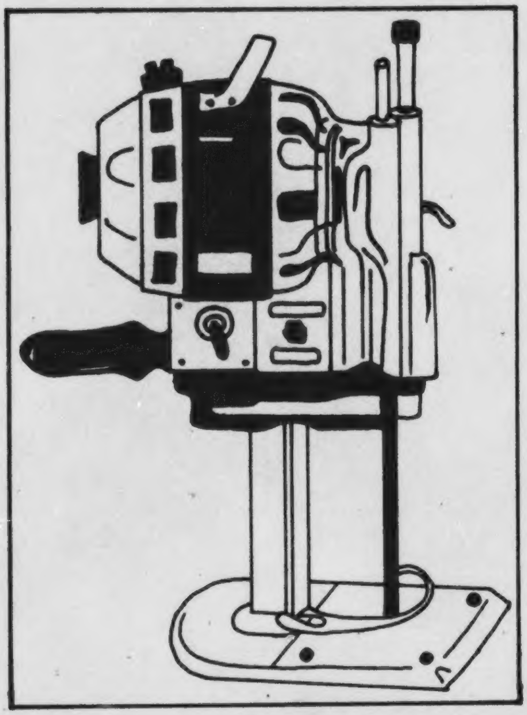
SAMPLE PATTERN



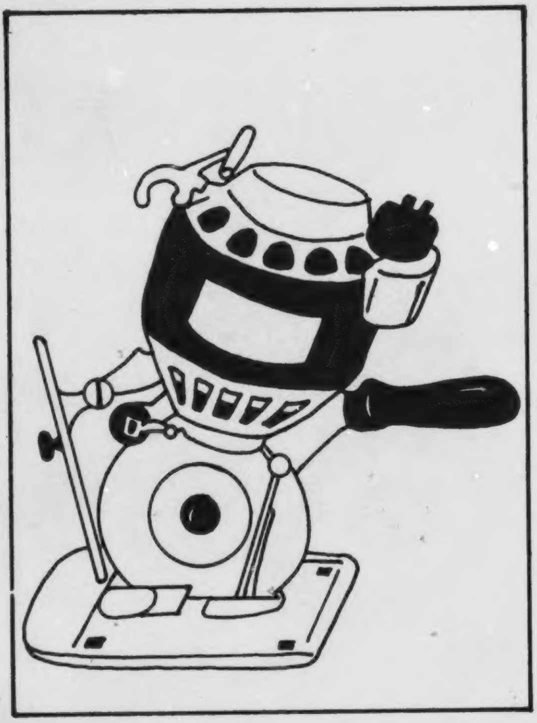
COMMERCIAL CUTTING MACHINES
(Transparency)



Cutting machines using overhead power in a cutting room.



Straight Knife Cutting Machine



Rotary (round) Knife Cutting Machine

SHADE MARKING
(Teacher Information Sheet)

Textile manufacturers cannot keep the color of a fabric exactly the same from one end of the bolt to the other, or from one bolt to the next. Garment parts cut several yards apart on the bolt may appear to be different shades. Therefore, parts must be bundled in the same order as they were laid on the cutting table, and assembled in that order.

The purpose of *shade marking* is to make sure that each part of a garment is joined to the garment parts cut from the same ply of fabric. Shade marking is done to the stacks of cut parts in the cutting room. Shade markings can be made with chalk, crayon, pencil, or ink, or stamped on by machine. Shade marking tickets can also be stapled, pinned, sewn, or applied by heat to each ply of fabric.

The amount of shade marking information placed on each ply depends on the needs of the factory. A shade marking ticket often includes the following information:

Cutting No. = The number of the particular cut
Lot No. = Designation of material used
Model No. = Style of the garment
Size = Examples: neck size, sleeve length, waist size, pant length, dress size
Variation = Example: long or short
Bundle No. =
Ply No. = The particular layer of cloth in the lay

The sewing machine operator must be able to read shade markings and understand them to prevent mixing the parts of a bundle. The operator must compare the shade markings on one part with the markings on the part to which it is being joined, before sewing the parts together.

THE TICKET SYSTEM
(Teacher Information Sheet)

The *ticket system* is the most common method used in the apparel industry to control production. When an order is received, a bundle or job ticket is prepared to direct every step of production.

The ticket goes first to the cutting room. The information on the ticket tells the cutter the color and style of the garment, and the number of plies of fabric and the size to cut. The ticket is then torn apart into sections with one section for each garment part. The pieces of fabric for each part are then bundled together, and the correct ticket section is attached to each bundle.

The individual bundles are then given to the appropriate operators in the sewing room. The ticket sections are divided into smaller coupons. Each coupon identifies a specific operation done at a specific work station, and the numbers indicate the exact order in which the operations are to be done. The bundle is delivered to the first work station shown on the first coupon.

The bundle ticket it divided into sections. There is usually one section for each sub-assembly and assembly. Each section is further divided into coupons. One coupon is included for each operation involved in the sub-assembly. When the worker completes his/her job on the bundle, she/he will tear off the coupon for that operation.

The coupon which the worker takes after completing an operation will have the following types of information:

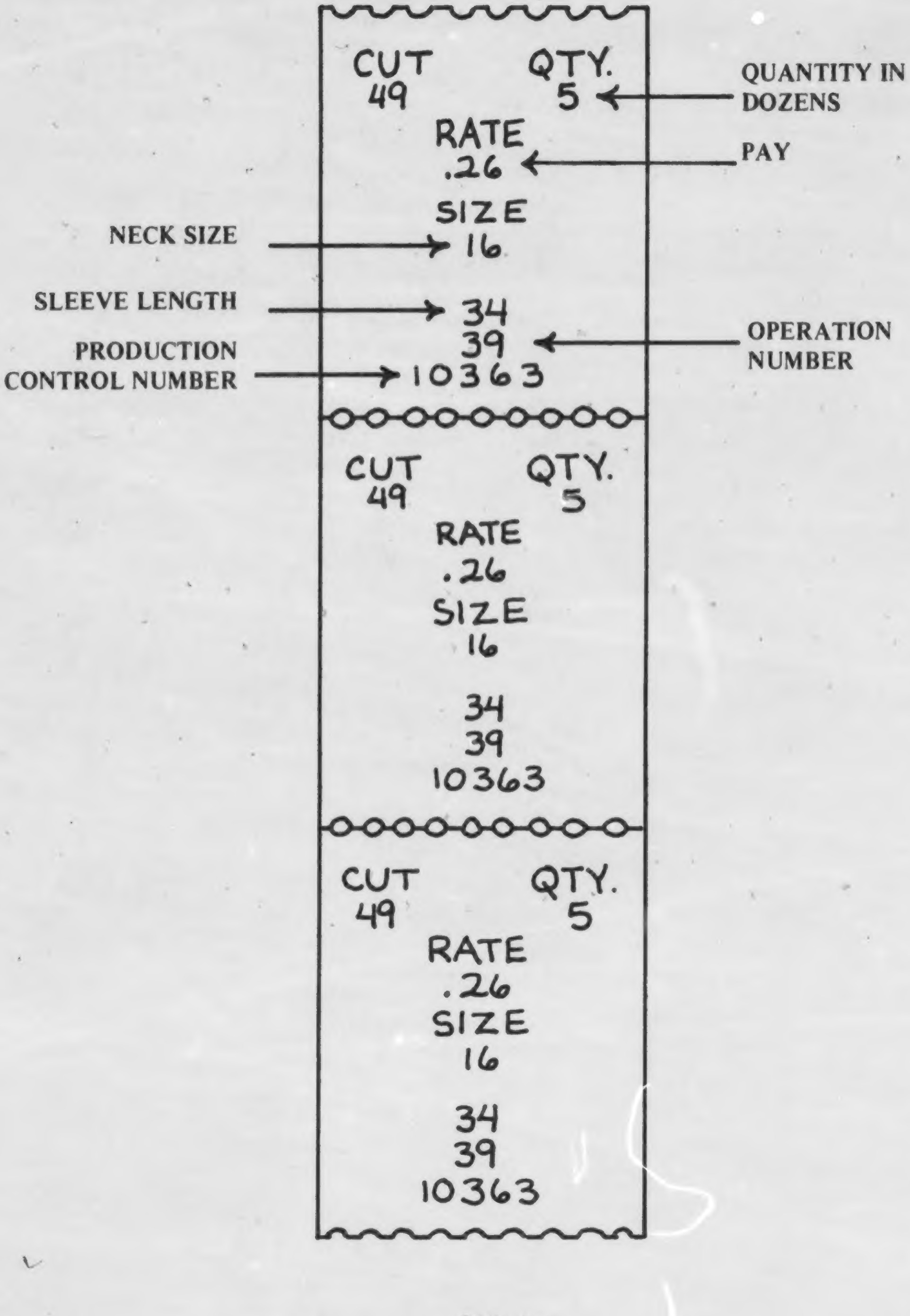
name or number of the job
bundle ticket number
amount, size, and color of the bundle
price of the job (if a piecework wage system is used)
style name or number
move ticket number controlling the bundle (of the cutting ticket number)

The operator at the first station opens the bundle and performs the required operation on all pieces. The finished work is then re-bundled. The operator removes and keeps the coupon for that operation, and attaches the rest of the ticket section to the new bundle. The operator then sends the bundle on to the next work station shown on the next coupon. Each coupon is removed in order until all the operations are completed.

When two parts of a garment are to be joined, two parts of the original ticket come together. This lets the operator compare the control numbers on both tickets to make certain that they match. If the numbers do not match, the garments parts should not be sewn together. An error has occurred in sending the materials through the factory.

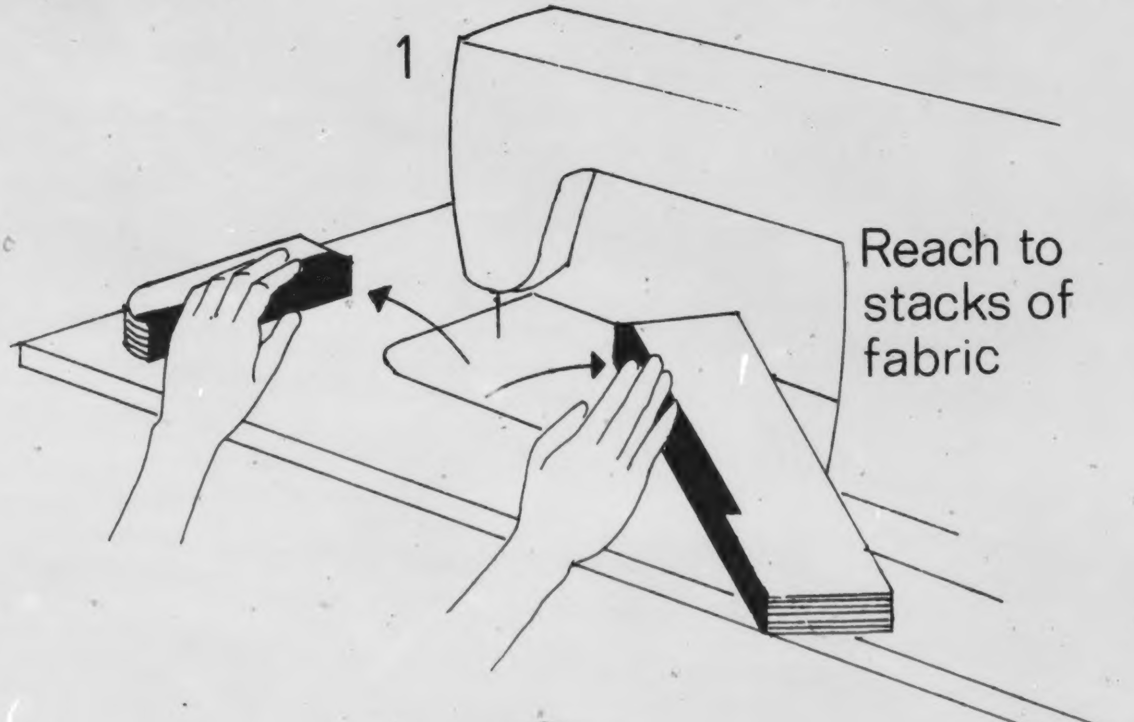
SAMPLE TICKET
(Transparency)

The sample ticket below shows information which might be included. Information on the tickets will vary from plant to plant.



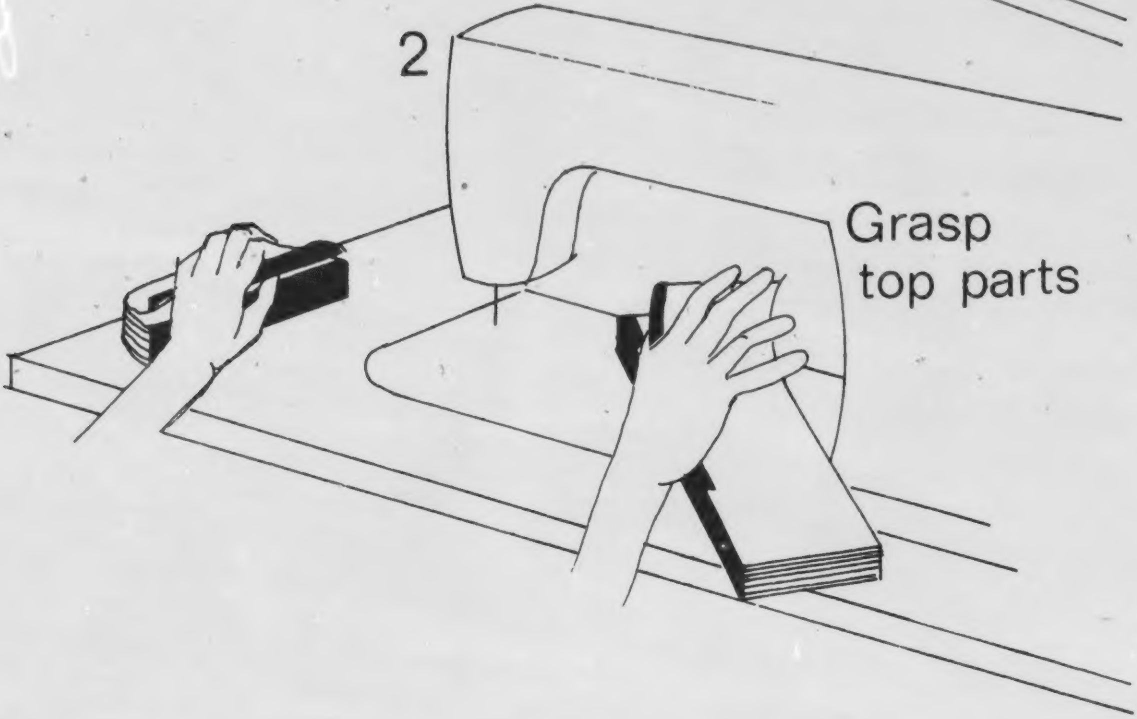
EXAMPLE OF GET AND DISPOSE

1



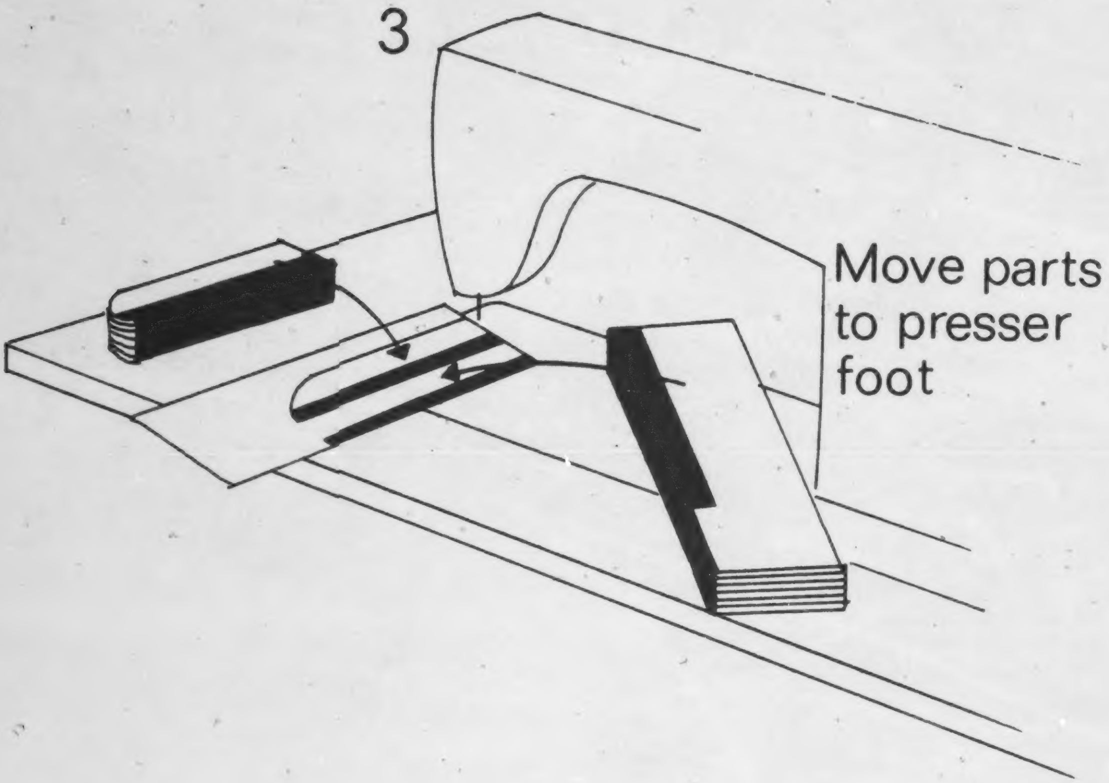
Reach to stacks of fabric

2



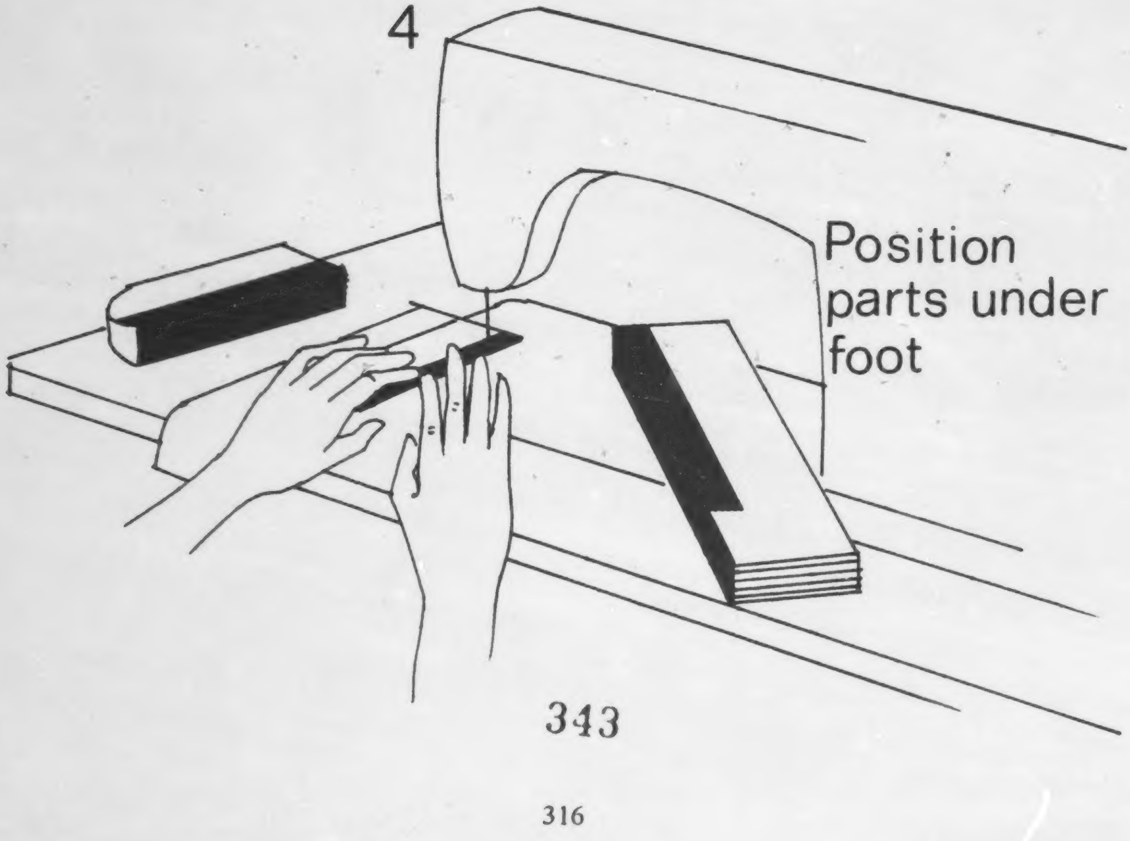
Grasp top parts

3



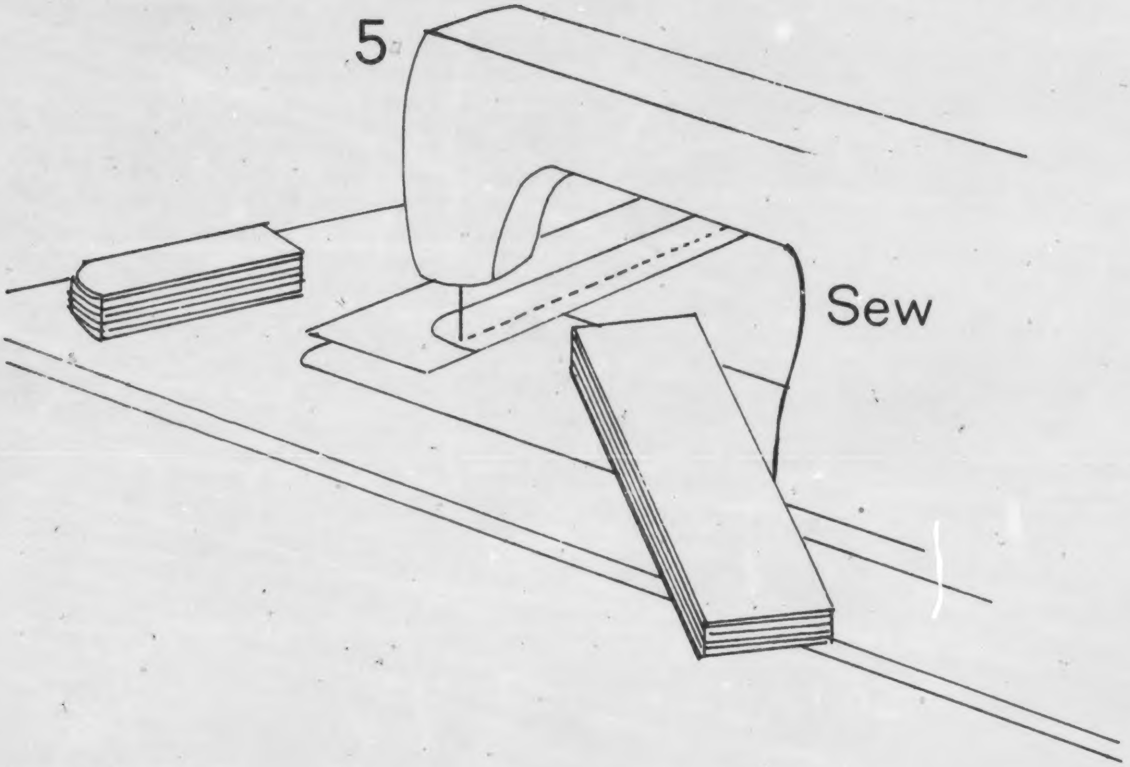
Move parts to presser foot

4

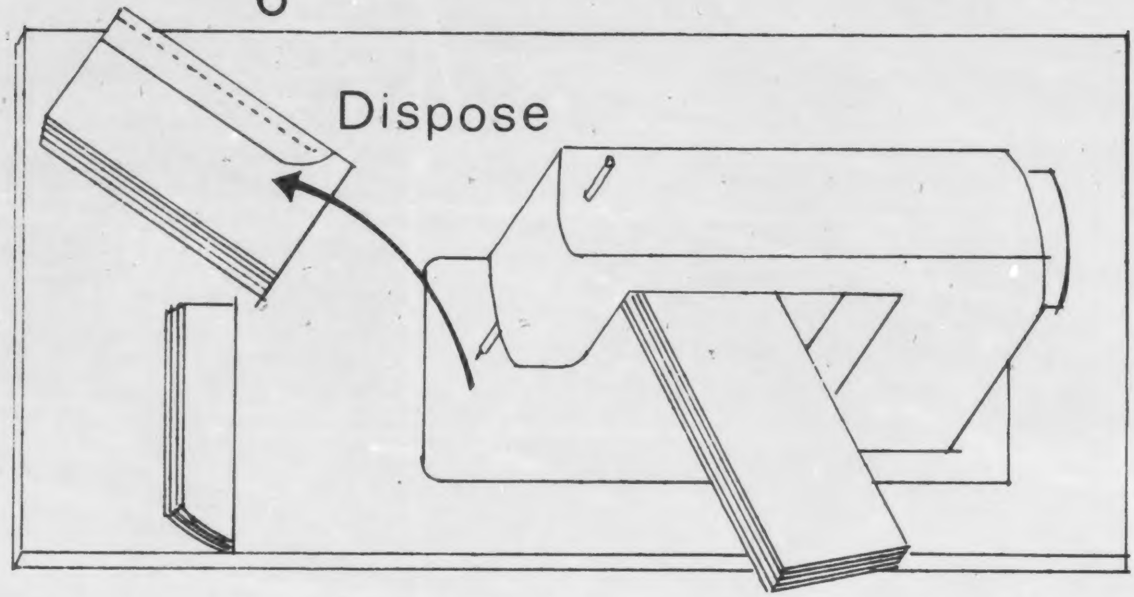


Position parts under foot

5



6



INCENTIVES
(Teacher Information Sheet)

Incentives are used in a garment factory to try to get the worker to produce more in a given period of time, to be on time, and to improve quality. Money, gifts, prizes, or special recognition can be used as incentives. Wage incentives are used to reduce labor costs and to increase earnings of employees. Incentive plans usually provide for an established hourly rate for 100 percent performance. Increased rates or bonuses are paid for production greater than 100 per cent.

Two common types of direct-wage systems are used, payment per unit time or payment per unit produced. The *time payment plan* pays the worker for the time on the job, based on expected production. Incentives can be provided for exceeding the expected level of production. The *payment per unit* plan pays the worker per unit produced. This can be by the piece or by the bundle. The worker may be paid an increased price per unit as production increases.

PROJECT SUGGESTIONS
(Teacher Information Sheet)

SIMPLE

- Scarf with fringed edges
- Scarf with hemmed edges
- Chef's apron
- Bandana top
- Towel wrap around
- Wrap and tie belts
- Disco bag with drawstring
- Tote bag
- Tube top
- Envelope handbag

INTERMEDIATE

- Collarless cape
- Pullover tops
- Vest
- Child's pajamas
- Nightshirts
- Rain poncho in school color
- Pants with elastic waist
- Choir robe
- T-shirt
- Dickey
- Skirt with elastic waist
- Quilted comforter robe

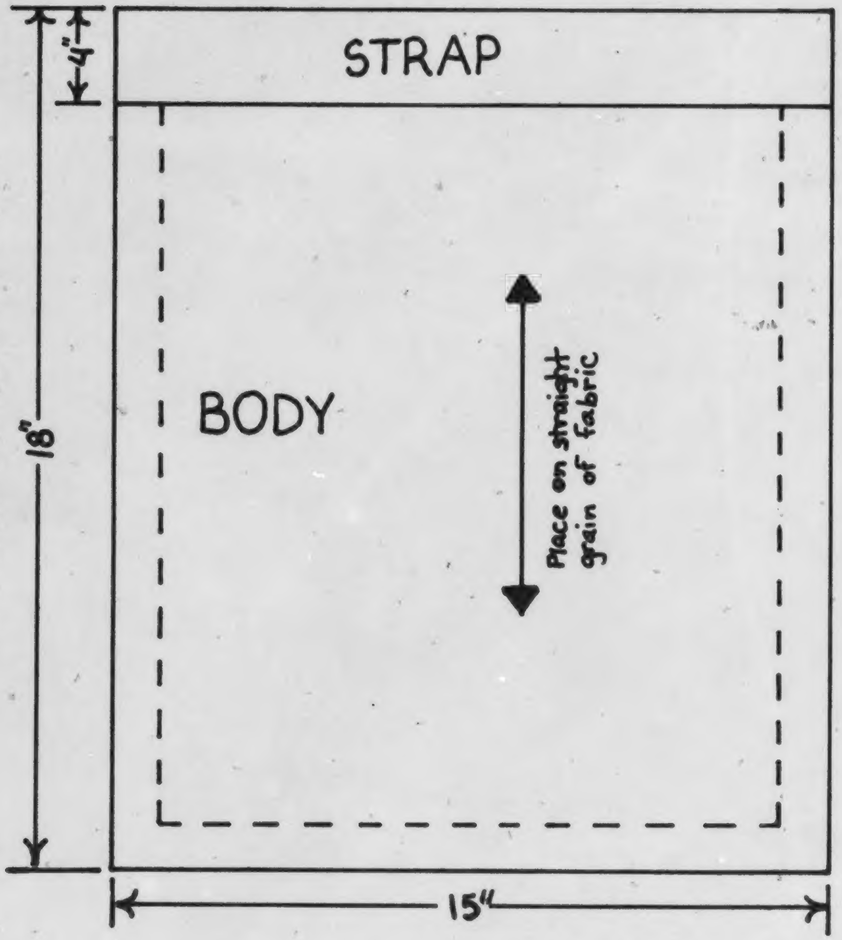
ADVANCED

- Shirt
- Dress
- Slacks with waistband
- Nightgown
- Robe
- Quilted slippers
- Uniforms

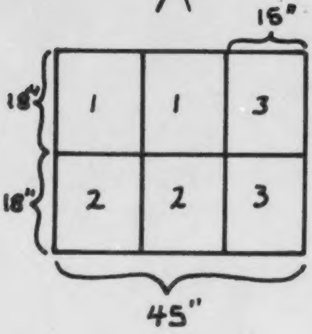
TOTE BAG
(Teacher Information Sheet)

DIRECTIONS:

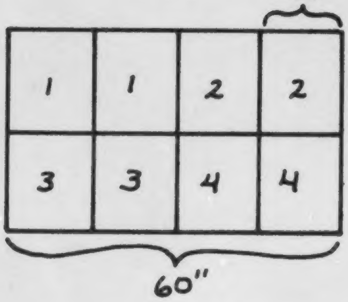
1. Place pattern on fabric so that the grainline is straight with the selvage edge. See illustration A or B for pattern layout. [NOTE TO TEACHER: 1 yard of 45 inch fabric will yield 3 tote bags when cut out as shown in illustration A. 1 yard of 60 inch fabric will yield 4 tote bags when cut out as shown in illustration B.]

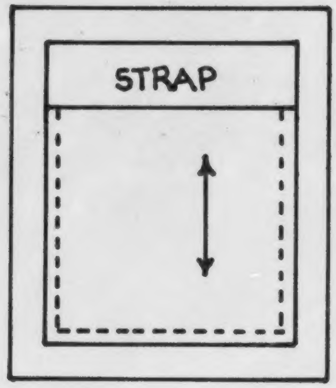


A



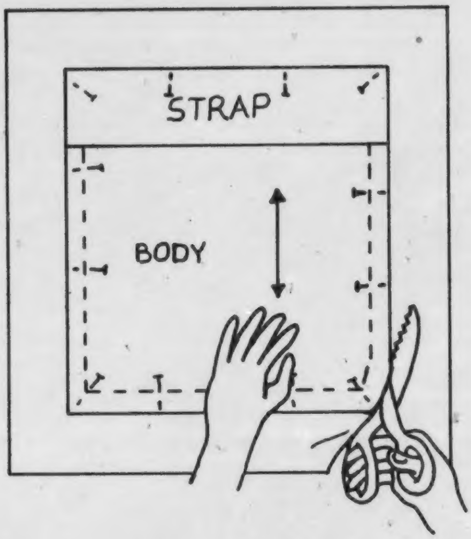
B



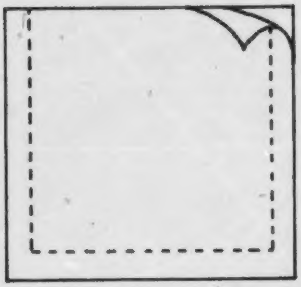


2. Pin or weight pattern to fabric and cut along the cutting lines. (For review of basic construction techniques, see p. .)

3. Cut strap off 4 inches from the top of the tote bag.

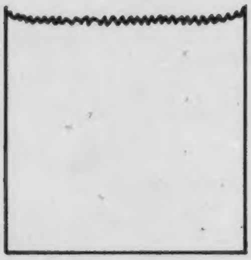


4. Place right sides of tote bag together and sew ½ inch from the edge along the sides and bottom. Be sure to leave the needle in the fabric when you raise the presser foot to turn the corner.

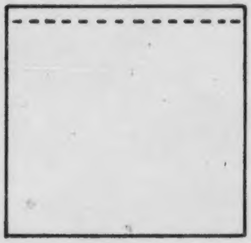


5. Turn the tote bag to the right side.

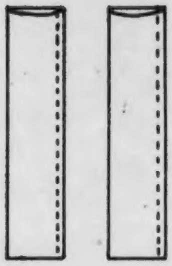
6. Serge top edge of casing and turn down two inches.



7. Stitch casing in place on sewing machine.

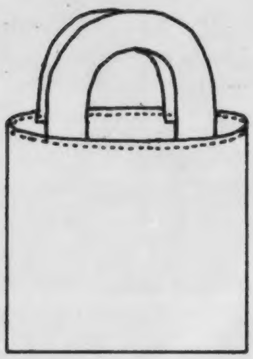


8. Fold strap in half so that the lengthwise edges come together. Sew ½ inch from the raw edge of each strap. Turn straps so that the right side is showing.



9. Position straps on inside of tote bag and stitch into place.

10. Trim any loose threads and press tote bag.



Other possible projects:
Chef's Apron, School Pillows

ALTERATIONS AND REPAIRS

Alteration and Repair Techniques

COMPETENCY: Ability to rip out stitches from garments.

SUB-COMPETENCY: Ability to select the proper tool for ripping out stitches.

WORDS TO KNOW:
garment alteration
rip
ripping scissors
seam ripper

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Note the meaning of garment alteration (C-K)	Listen as your teacher defines the meaning of garment alteration. In what ways have your clothes been altered at home? Were the alterations permanent? Can all garments be altered to fit? Do both men and women need clothing alterations?
Name tasks performed by an alterations employee (C-K)	Listen to your teacher discuss what an alterations employee does. Name some of the alterations that can be made to improve the appearance and fit of a garment.
	Take a field trip to an alterations department to observe methods of measuring, marking, and altering used in a commercial establishment. Who performed the alterations? What types of alterations did you see in the alterations department? In your own words tell the class what you observed on the field trip. Why were alterations being made? Who were the alterations for?
	Look at garments that have been altered. Why was each alteration done? [NOTE TO TEACHER: Include examples of shortened skirt or dress, lengthened or shortened pants, and let out or taken in seam allowance.]
Identify ripping tools (C-K)	Listen as your teacher explains the use of tools for ripping out stitches. When would these tools be used?
	Observe tools that are used for ripping out stitches, such as ripping scissors, seam ripper, a pin, and a needle. Repeat the name of each tool as your teacher holds it up.
State safety procedures to follow when using ripping tools (C-K)	Listen to your teacher discuss the safety of each tool. How must each ripping tool be held for safety? How could a person be injured by a ripping tool? What is the safest way to rip out stitches with each tool?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Explain safety procedures in using ripping tools (C-C)	Show the class how to hold each ripping tool when removing stitches. How can ripping tools be held to prevent an accident? Which ripping tool is the safest to use?
Cite procedures for ripping out stitches with ripping scissors (C-K)	Watch as your teacher shows you how to remove stitches with ripping scissors. How far apart are the snipped threads? Are the threads pulled from top or bottom? Why is it important to use ripping scissors?
Try ripping out stitches with ripping scissors (P-GR)	Follow the steps for removing stitches with ripping scissors as your teacher shows you each step. [NOTE TO TEACHER: Give students sturdy fabric samples that have a seam down the center. Stitch the seam in a contrasting thread using a long machine stitch. When students become more experienced at ripping out stitches, a shorter machine stitch may be used on fabric samples.]
Cite procedures for using a seam ripper (C-K)	Watch as your teacher shows you how to remove stitches with a seam ripper. How is the seam ripper held? How many stitches are ripped out at once? How could the fabric be damaged by the seam ripper? (See the lesson on "Sewing Tools and Equipment," p. 29 for review of procedure for using seam ripper.)
Attempt removal of stitches with a seam ripper (P-GR)	Practice removing stitches on fabric samples with a seam ripper.
Demonstrate the procedure for ripping out stitches with a seam ripper (P-M)	Take turns showing the class how to rip out stitches using a seam ripper. When should the thread be removed?
Explain how to rip out stitches (C-C)	In your own words explain the steps involved in ripping out stitches. When would ripping scissors be used to rip out stitches? When would a seam ripper be used?
Identify stitches which need to be removed with a pin or needle (C-K)	Look at areas on ready-made garments where stitches are very small and may have to be removed with a pin or needle. [NOTE TO TEACHER: Examples could include garments with bound buttonholes, or the closed seam over a zipper.]
State how to remove stitches with a pin or needle (C-K)	Watch as your teacher shows you how to remove stitches with a pin or needle. In your own words tell how to remove stitches with a pin or needle. How is damage to an area prevented? When would a pin or needle be used to rip out stitches? [NOTE TO TEACHER: Have students use long pins with large heads for easier handling.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Practice removing small stitches with a pin or needle (P-GR)	Remove stitches using a pin or needle with your teacher's help. Check to be sure that you don't damage the fabric. [NOTE TO TEACHER: Students can remove stitches from a bound buttonhole or the closed seam over a zipper.]
	Attempt to remove stitches on fabric samples using a pin or needle. Have your teacher check your work.
Determine which ripping tool is easiest for you to use (C-An)	Remove stitches in straight and curved seams on various fabrics using ripping scissors, seam ripper, pin, or needle. [NOTE TO TEACHER: The seams on discarded garments can be used for this activity.] On which fabric was each ripping tool the best tool to use? Tell the class which ripping tool is the easiest for you to use.
	Draw a fabric sample out of a box. Tell the class which ripping tool would be the best tool for you to use to rip out the stitches on your fabric sample. Why?
Practice removing stitches from ready-made garments (P-GR)	Attempt to rip stitches from ready-made garments that need altering. Before you remove any stitches check with your teacher to see if you are using the correct ripping tool for the fabric.
Remove seams from ready-made garments (P-M)	Rip stitches from ready-made garments that need altering, using the ripping tool best for the fabric.

WORDS TO KNOW
About Alteration and Repair Techniques
(Teacher Information Sheet)

garment alteration - to change a garment to make it fit better.

rip - to open a stitched area by removing stitches.

ripping scissors - scissors that have pointed tips used for ripping out stitches.

seam ripper - a small tool with a pointed end used for ripping out stitches.

ALTERATIONS AND REPAIRS

Garment Repair

COMPETENCY: Ability to make simple garment repairs and alterations.

SUB-COMPETENCY: Ability to select and use appropriate techniques to make garment repairs.

WORDS TO KNOW:
mending tape
hand darn
machine darn
hemmed patch
pick glass

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Identify various tears or burns which are likely to appear in fabrics (C-K)	Look at a display of different kinds of tears or burns which are likely to appear in clothing. Listen to your teacher discuss how garments get torn or burned. A pick glass may be used to magnify the threads so they can be seen easily. NOTE TO TEACHER: The three most common tears are a three cornered tear, a diagonal tear, and a straight tear.]
Cite procedures for using mending tape to repair a tear (C-K)	Watch as your teacher shows you the steps used to repair a tear using mending tape. What are the advantages of using mending tape? When would mending tape be used for a repair? When would you *not* use mending tape for a repair? [NOTE TO TEACHER: Steps for using mending tape include: (1) Cut a piece of tape slightly longer than the tear, (2) Round the corners of the tape, (3) Lay the tape on the wrong side of the garment making sure that the torn place is closed, and (4) Iron the tape over the torn place.]
Explain how to use mending tape (C-C)	In your own words describe how to repair a tear using mending tape. Why must the adhesive side of the tape be placed next to the fabric? Why must the torn place be closed before ironing the tape on?
Try applying mending tape to a tear (P-GR)	Follow each step in applying mending tape to a tear in a fabric sample as your teacher shows you that step. Check to see that the torn place is closed before you apply the tape.
Apply mending tape to a tear on fabric (P-M)	Practice using mending tape to repair tears in fabric samples. Have your teacher check your work.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Note methods for darning fabrics (C-K)	Observe a display of various types of darning on different fabrics as your teacher explains what is meant by "hand darn" and "machine darn." What kind of tear would be best repaired by darning? What are the advantages of hand darning? What are the advantages of machine darning?
Give examples of garments darned by hand and machine (C-C)	Look at a display of garments that have been darned. In your own words describe the darning method used for each garment. Why was that method used?
Cite the correct procedure for hand darning (C-K)	Watch a demonstration on correct methods for hand darning. What color and size of thread is used for darning? Why is a thin needle best for darning? What can be placed under the hole or tear to be darned?
Practice steps for hand darning (P-GR)	Follow the steps for hand darning tears or burns on fabric samples. Make sure your stitches run on the crosswise and lengthwise grain of the fabric.
	Practice hand darning fabric samples that have been torn, burned, or cut. Have your teacher check your work.
Note procedure for machine darning (C-K)	Watch as your teacher shows you how to machine darn. What color of thread is used? What size stitch is best for machine darning?
Practice steps for machine darning (P-GR)	Follow each step in machine darning a tear or burn on a fabric sample as your teacher shows you that step. How does hand darning compare to machine darning?
	Practice machine darning tears or burns in fabric samples. Have your teacher check your work.
Gain speed and accuracy in darning garments (P-M)	Darn various articles of clothing to gain speed and accuracy in methods of hand and machine darning. [NOTE TO TEACHER: Garments might be obtained from a children's home, hospital, nursing home, school cafeteria, or athletic department.]
	Hold a contest to name the "Best Darned" garment. Was the proper method of darning used? Does the garment have a good final appearance? [NOTE TO TEACHER: Plan a contest so that all students receive an award. Awards could be for correct method of darning, neatness, correct color of thread, no puckers, etc.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Identify a hemmed patch (C-K)	Look at garments with hemmed patches. Listen as your teacher describes a hemmed patch. Why would a patch be needed? Could the repair have been made by darning or use of mending tape? Why?
Cite steps in making a hemmed patch (C-K)	Observe a display of steps used in making a hemmed patch as your teacher explains each step. What items are needed in making a hemmed patch? [NOTE TO TEACHER: Use fabric samples to construct each step in making a hemmed patch. See p. 331.]
	Watch a demonstration on the steps used in making a hemmed patch. What fabric is best to use as a patch? [NOTE TO TEACHER: Refer to p. 331 for steps in making a hemmed patch.]
Describe steps involved in making a hemmed patch (C-C)	Arrange cards showing the steps in making a hemmed patch in the correct order. In your own words describe each step to the class. [NOTE TO TEACHER: Use illustrations on p. 331 for making cards.]
Practice the steps used in making a hemmed patch (P-GR)	Follow the steps for making a hemmed patch as your teacher shows you each step. Look at the fabric samples or drawings as needed.
	Practice making a hemmed patch using fabric samples. Have your teacher check your work.
Name the proper method for repairing tears or holes in fabric (C-K)	Look at a display of samples of fabric that have been repaired using a hemmed patch, machine or hand darn, and mending tape. Name the method that was used for each repair. Why was each method used?
Practice repairing tears or holes in fabric following the proper method (P-GR)	Repair holes or tears in fabric samples given to you by your teacher. Use either hand darning, machine darning, or a hemmed patch for the repair.
Determine if correct techniques were used for repairs (C-An)	Look at the finished samples from the previous learning experience. Was the proper repair method used on each sample? Do the repaired areas have a neat appearance? Which method of repair was easiest and took the least amount of time to complete?
Repair tears or holes in fabric (P-M)	Repair clothing or stuffed toys collected by a service organization. [NOTE TO TEACHER: This would make an excellent community service project for FHA/HERO.]
	Bring garments to class to mend for yourself or someone else. Use the best method for making each repair.

WORDS TO KNOW

About Garment Repair

(Teacher Information Sheet)

mending tape - a coated fabric that is ironed on fabric to repair tears or burns.

hand darn - to repair a hole or tear in clothing by stitching across the hole or tear with a needle and thread.

machine darn - to repair a hole or tear in clothing by stitching back and forth across the hole or tear with a sewing machine.

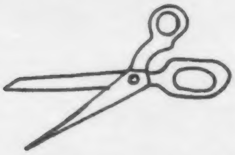
hemmed patch - a patch that is stitched by hand or on the sewing machine to cover a hole in fabric.

pick glass - small magnifying glass used to enlarge the threads in fabric so they can be seen easily.

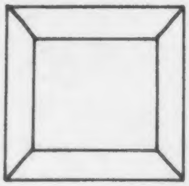
HEMMED PATCH
(Teacher Information Sheet)

To make a hemmed patch, follow these steps:

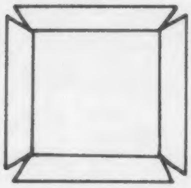
1. Mark smallest possible square or rectangle that will cover the damaged area.



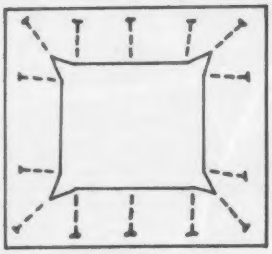
2. Cut along lengthwise and crosswise yarns.



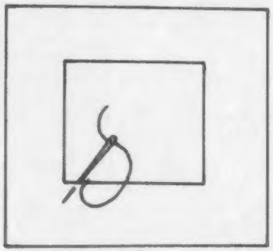
3. Clip each corner of the hole diagonally about ¼-inch deep.



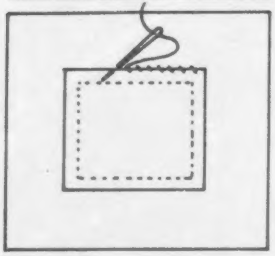
4. Turn edges of hole under a little past ends of clips. Crease sharply, or press. Take care not to stretch the material if you crease instead of press.



5. Slide patch under hole until pattern matches. Pin in place; then cut patch about 1 inch larger than the hole on all four sides.



6. Baste patch in place. On outside of garment, hem with fine running stitches. Stitch closely at the corners of garment. Let stitches catch in very edge of opening.



7. Turn edge of patch under about ¼-inch on inside of garments made of light-weight and washable materials. Snip out bulk. Baste, and hem invisibly to garment. In thick materials, catch-stitch edges of patch to garment; or pink edges of patch, and seed-stitch in place. Choose the stitch that best suits your material, but make stitch so it is not seen on the right side.

ALTERATIONS AND REPAIRS

Alteration of Men's and Women's Clothing

COMPETENCY: Ability to make simple garment repairs and alterations.

SUB-COMPETENCIES: Ability to interpret alteration markings.

Ability to make simple alterations to men's and women's garments.

WORDS TO KNOW:

garment alteration
crease line
chalk line
alteration ticket
tailor's chalk
side seam
dart
lengthen
shorten
original hem line
original seam line
take up seam
let out seam
alteration symbol

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Identify reasons for altering garments (C-K)	View a bulletin board titled, "The Many Shapes of People" to learn the reasons garments need altering. [NOTE TO TEACHER: On the bulletin board include pictures that show definite fitting problems.] How would differences in people's sizes and shapes affect garment fit? How do you feel in a garment that doesn't fit?
Note alteration terms (C-K)	Listen as your teacher describes alteration terms including: hem, side seam, and dart alterations. Repeat each term as your teacher says it.
	Look at pictures of men's and women's garments. Listen as your teacher points out areas on the garments where alterations may be needed. [NOTE TO TEACHER: Include illustrations of garments showing side seams, darts, and hems.]
Name types of alterations (C-K)	View slides of men and women wearing garments which do not fit. Where does the garment not fit? Listen as your teacher briefly states where the garment needs to be altered. Name places a garment may need to be altered to make it fit its wearer.
Identify alteration tickets and symbols (C-K)	View a transparency showing alteration tickets. (See p. 338.) Listen as your teacher describes each symbol. Why are alteration tickets used? Who reads alteration tickets?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Find the area on a garment where the alteration would be made as your teacher holds up a drawing of each alteration symbol.
Describe an alteration ticket (C-C)	Reach into a grab bag and draw out an alteration ticket. In your own words explain what the alteration ticket means.
State procedures for marking garments for alterations (C-K)	Listen as your teacher describes how to mark garment alterations. What is used to mark the garments? Why must garments be marked for alterations? Why must some garments be pinned for needed alterations?
	Watch as your teacher shows you how to mark garments for each alteration. [NOTE TO TEACHER: Show students how to mark alterations on side seams, darts, and hems.]
Practice marking garments for alterations (P-GR)	Practice marking garments for alterations with your teacher's help. What improvements are needed?
	Practice marking a garment for the alteration that your teacher names. Have your teacher check your work.
Follow procedures for preparing a garment for alterations (P-GR)	Remove original stitches from a garment to prepare it for alterations. Follow correct steps in removing stitches. Why must you be careful when removing stitches? [NOTE TO TEACHER: Students can refer to lessons on small cutting tools, p. 65 and on small sewing tools on p. 25 for review on removing stitches.]
Cite procedures for lengthening hems (C-K)	Watch as your teacher shows you how to lengthen a hem using the blindstitch machine. Why would a hem need to be lengthened? How can you tell whether or not a hem can be lengthened? What is used to mark new hems? How is the original crease line used to mark the new hem?
	Look at pictures showing steps in lengthening a hem as your teacher describes each step. (See p. 339.)
Describe steps in lengthening hems (C-C)	Explain what is being done in the step as your teacher points to a picture showing a step in lengthening a hem. [NOTE TO TEACHER: Use the pictures from p. 339 for this activity.]
Practice procedures for lengthening hems (P-GR)	Follow the steps for lengthening a hem as your teacher shows you each step.
	Practice lengthening hems on discarded garments. Have your teacher check your work.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Note procedures for shortening hems (C-K)	Watch as your teacher shows you how to shorten a hem using the blindstitch machine. Why would a hem need to be shortened? When should excess hem be cut away? How is the original crease line used to mark new hems?
	Look at pictures showing the steps in shortening a hem. Listen as your teacher describes each step. (See p. 340.)
Explain steps in shortening hems (C-C)	Describe in your own words the steps for shortening a hem.
	Work in groups of two to arrange cards showing steps in shortening hems in the correct order. [NOTE TO TEACHER: Cards can be made using the pictures from p. 340.]
Practice shortening hems (P-GR)	Follow the steps for shortening a hem as your teacher shows you each step.
	Practice shortening hems on discarded garments. Have your teacher check your work.
Note steps involved in side seam alterations (C-K)	View pictures showing the steps in side seam alterations. Listen as your teacher explains each step. What is meant by taking in a side seam? What is meant by letting out a side seam? Why are side seam alterations needed? (See pp. 341-342.)
	Watch as your teacher shows you how to make side seam alterations. Can side seams on all garments be altered? When can side seams not be let out? What size stitches are used?
Describe procedures for side seam alterations (C-C)	Describe side seam alterations in your own words to the class. Explain the steps for taking in a side seam. Explain the steps for letting out a side seam.
Practice altering side seams (P-GR)	Follow the steps for altering a side seam as your teacher shows you each step.
	Practice altering side seams on discarded garments. Read the alteration ticket. Use correct markings. Rip stitches carefully. Measure carefully. Pin. Stitch. Press. Have your teacher check your work.
Cite procedures for lengthening a dart (C-K)	Watch as your teacher shows you how to lengthen darts. When do darts in a garment need to be lengthened? Can the darts always be lengthened?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Look at pictures showing the steps in lengthening a dart. Listen as your teacher describes each step. (See p. 343.)
	Look at a display showing the steps to be followed in lengthening a dart. [NOTE TO TEACHER: The display could feature a bulletin board or posters to illustrate the steps. Actual garments or fabric samples could also be used in the display to illustrate the steps.]
Describe steps involved in lengthening a dart (C-K)	Describe what is being done as your teacher points to a step on the dart alteration display. [NOTE TO TEACHER: The dart alteration display referred to is the one from the previous learning experience.]
	Follow the steps for lengthening a dart as your teacher shows you each step.
Practice lengthening darts (P-GR)	Practice lengthening darts on discarded garments. Have your teacher check your work.
Identify procedures for shortening darts (C-K)	Watch as your teacher shows you how to shorten a dart. Why do darts in garments sometimes need to be shortened? When could a dart in a garment not be shortened?
	Look at pictures showing each step in shortening a dart. Listen as your teacher describes each step. (See p. 344.)
Describe steps involved in shortening a dart (C-C)	Look at a display showing the steps in shortening a dart. [NOTE TO TEACHER: Display could be similar to the one made for lengthening darts. The displays could be placed in the VEH laboratory for students to refer to.] In your own words explain what has been done in each step.
Practice shortening darts (P-GR)	Follow steps for shortening a dart as your teacher shows you each step.
	Practice shortening darts on discarded garments. Have your teacher check your work. Did you find any garments on which darts could not be shortened?
Practice procedures for altering garments (P-GR)	Alter discarded garments to fit a dress form to which body irregularity pads have been added. Have your teacher check your work.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Use discarded garments and practice making the alterations your teacher names. [NOTE TO TEACHER: Repeat this activity as many times as needed to give each student an opportunity to practice making the various alterations for hems, side seams, and darts.]
Perform procedures for altering garments (P-M)	Look at an alteration ticket given to you by your teacher. Make the alteration given on the alteration ticket by ripping out original stitches, marking the alteration, and restitching.
	Alter garments collected for needy children to fit their new owners. Have your teacher check the fit of the garment.

WORDS TO KNOW
About Alteration of Men's and Women's Clothing
(Teacher Information Sheet)

garment alteration - to change a garment to make it fit better.

crease line - a mark made by the fold of a hem.

chalk line - a mark made on a garment using chalk.

alteration ticket - a piece of paper used to show what alteration is needed on a garment.

tailor's chalk - chalk used to mark garments. It can be rubbed off easily.

side seam - the line formed on the side of a garment by sewing two garment parts together.

dart - a tuck that has one pointed end. It is used to make clothing fit over curved areas of the body.

lengthen - to make part of a garment longer.

shorten - to make part of a garment shorter.

original hem line - the crease made by the fold in the first hem.

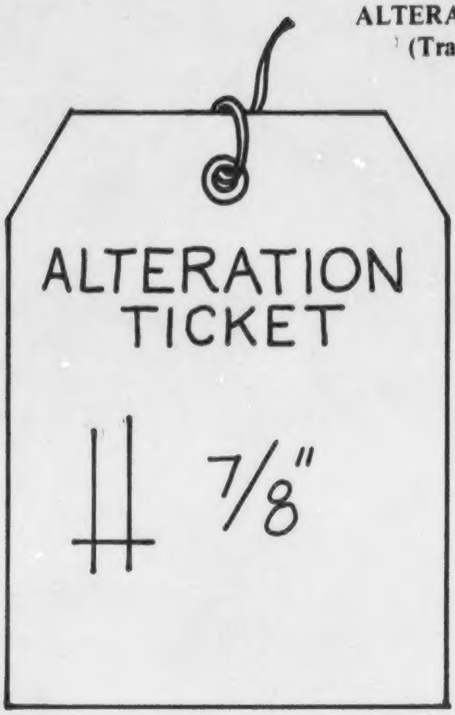
original seam line - the crease made by the first seam.

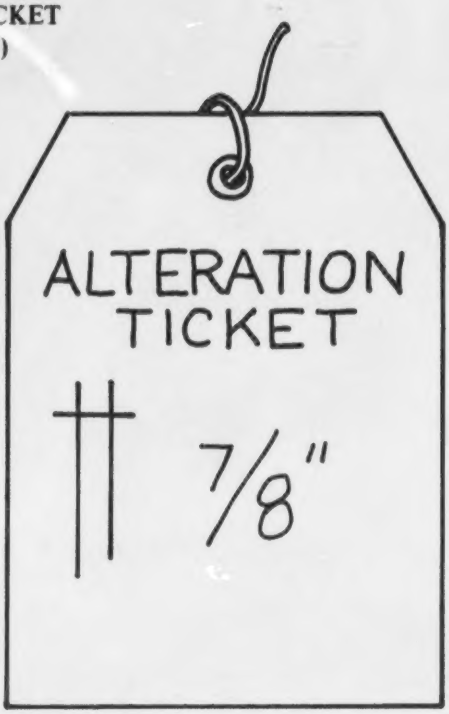
take up seam - to make a garment smaller by sewing larger seams.

let out seam - to make a garment larger by sewing smaller seams.

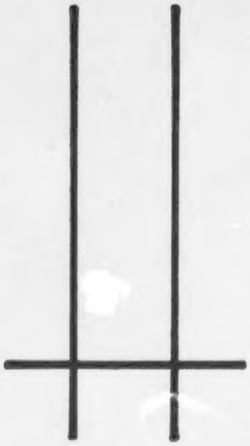
alteration symbol - a sign that stands for a garment alteration.

ALTERATION TICKET
(Transparency)

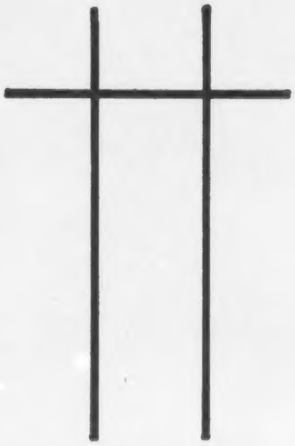




SHORTEN SYMBOL

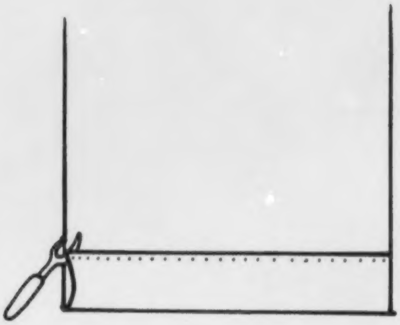


LENGTHEN SYMBOL

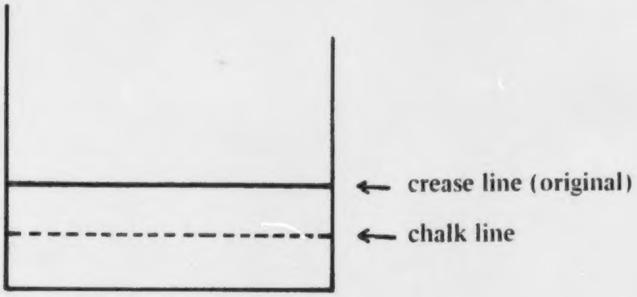


LENGTHENING HEM
(Handout)

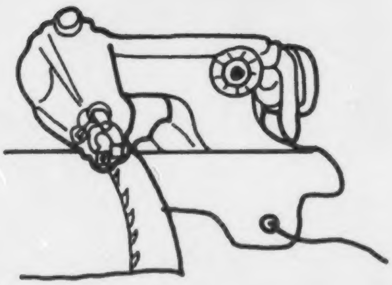
1. Rip stitches from old hem.



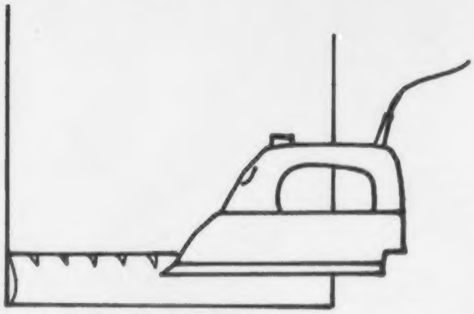
2. Mark new hemline with chalk.



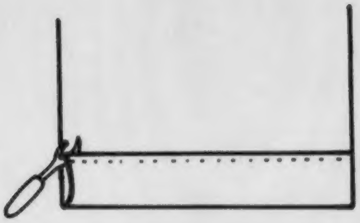
3. Fold new hem at chalk line and stitch using the blind-stitch machine.



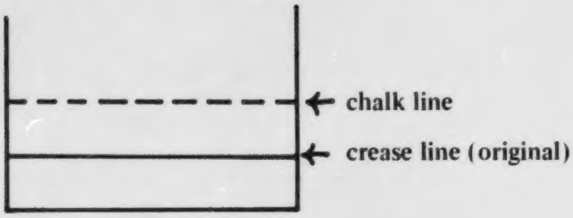
4. Press new hem.



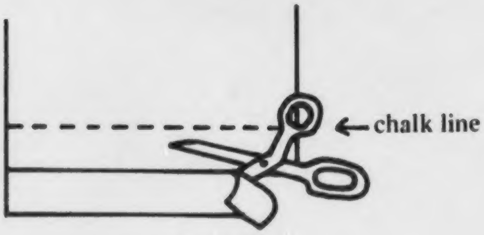
SHORTENING HEM
(Handout)



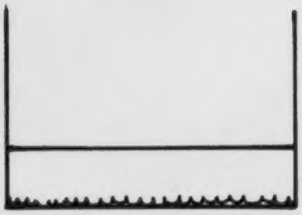
1. Rip stitches from old hem.



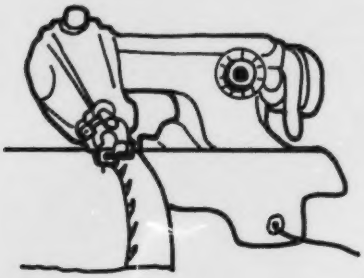
2. Mark new hem with chalk.



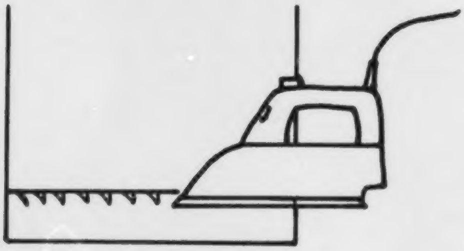
3. Cut away excess hem.



4. Apply hem finish.



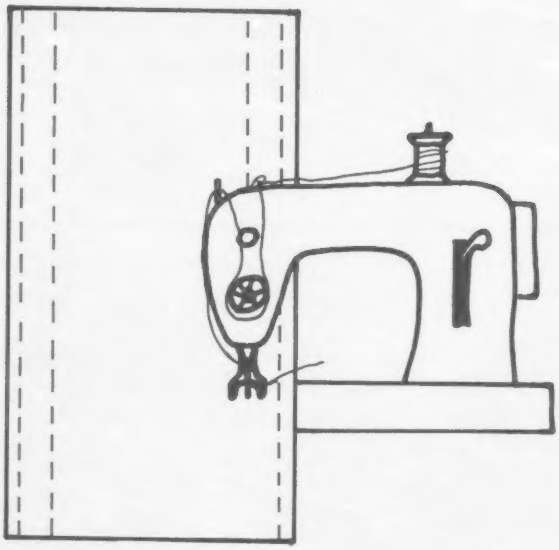
5. Fold new hem at chalk line and stitch using the blind stitch machine.



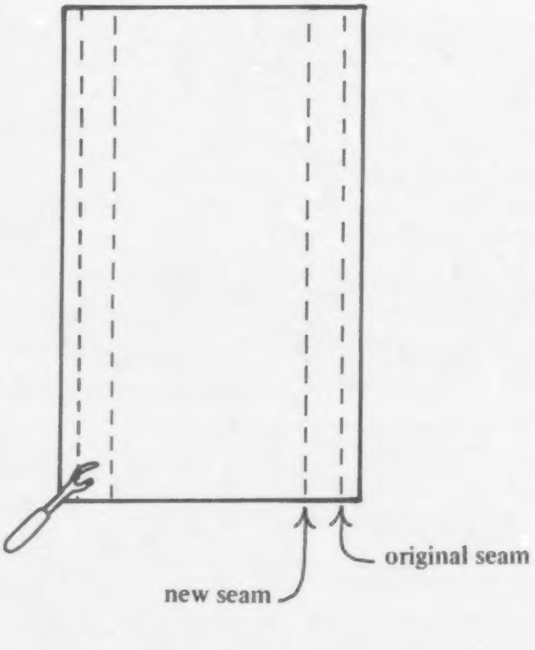
6. Press new hem.

TAKE UP SEAM
(Handout)

1. Stitch seam along new seam line to make seam larger.

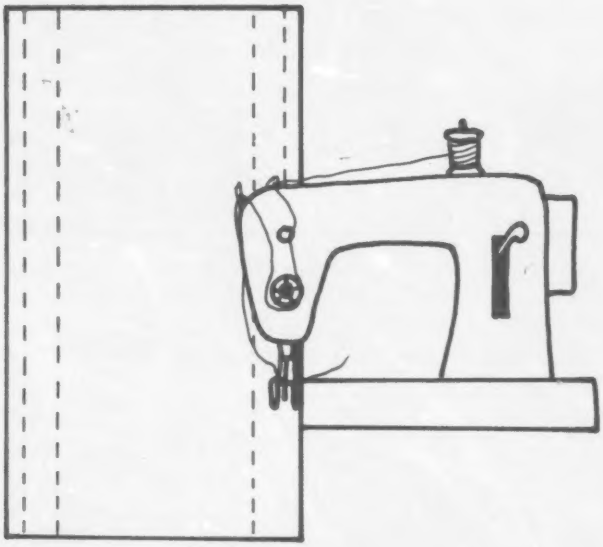


2. Remove original stitches by ripping.

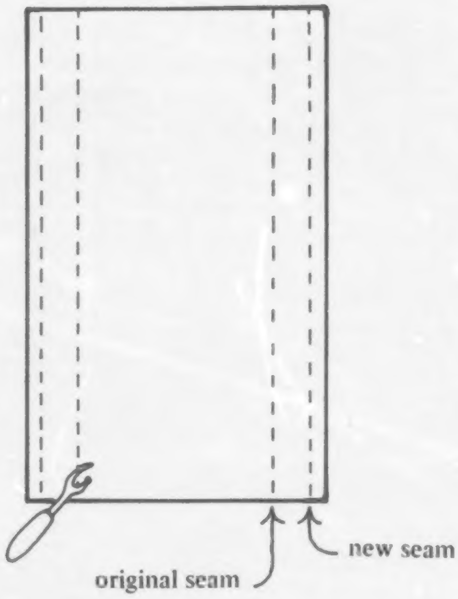


LET OUT SEAM
(Handout)

1. Stitch seam along seam line to make a smaller seam.

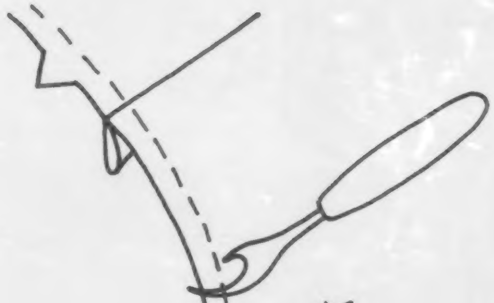


2. Rip original stitches.

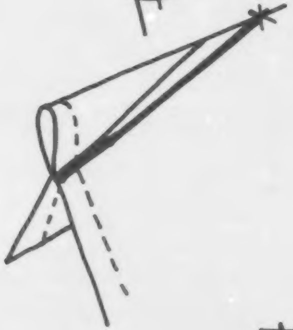


LENGTHENING DARTS
(Handout)

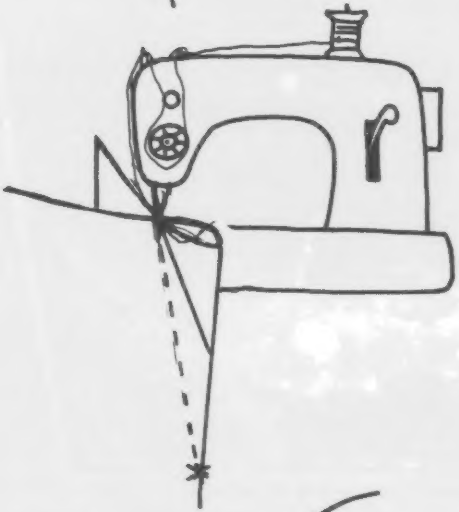
1. Rip side seam of old dart.



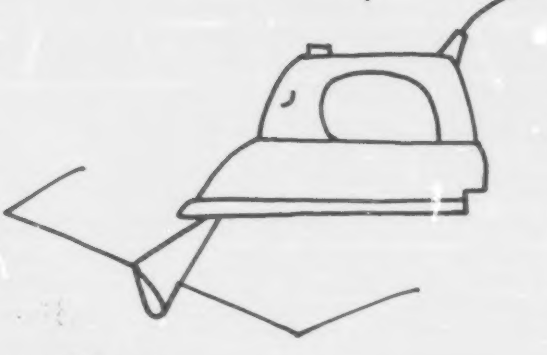
2. Draw a line with chalk from the base of the dart to the new point.



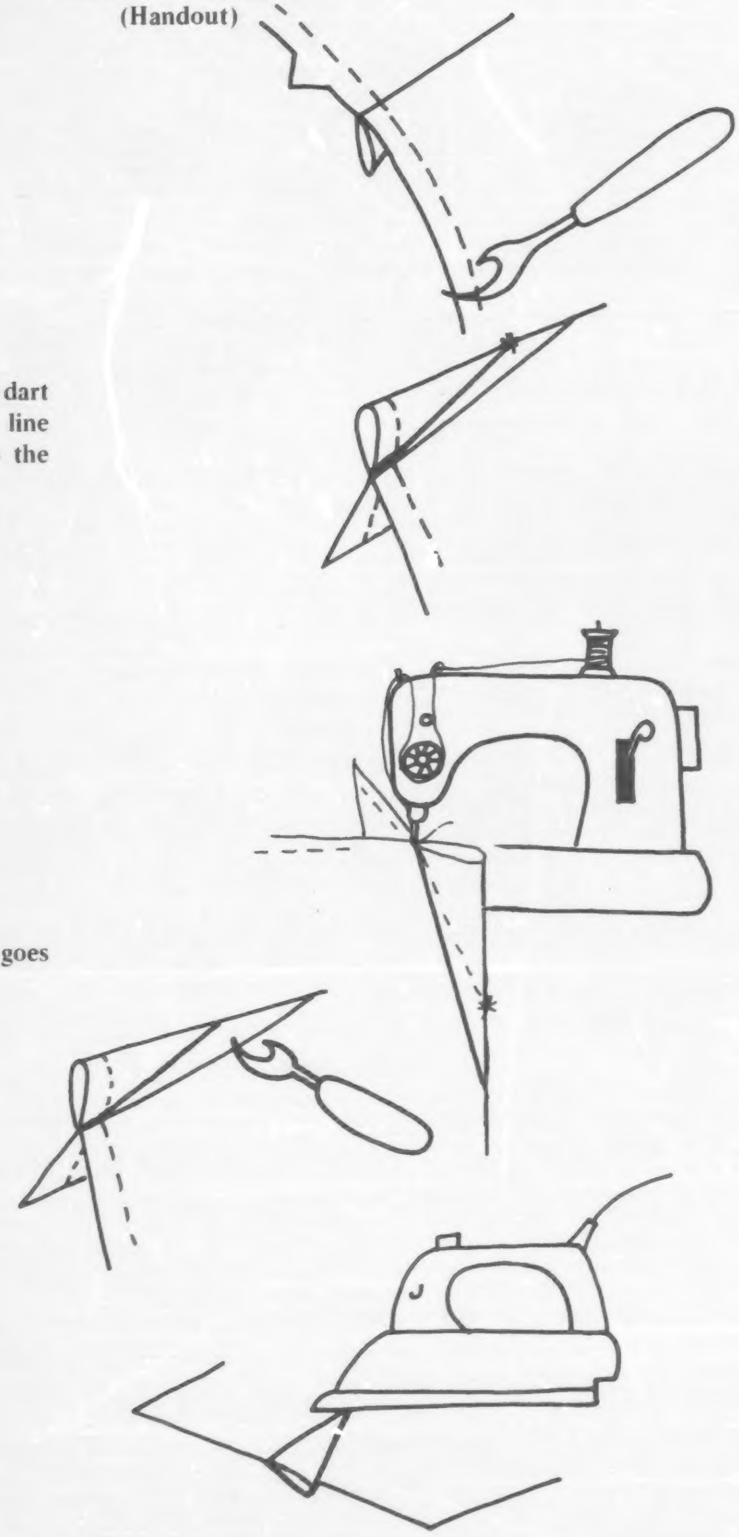
3. Stitch along chalk line.



4. Press new darts.



SHORTEN DARTS
(Handout)



1. Rip old seam.
2. Mark the point at which the dart should end. Make a chalk line from the base of the dart to the new point.
3. Stitch along the chalk line.
4. Rip original stitching which goes beyond the new point.
5. Press new dart.

LAUNDRY PROCEDURES

Home Laundry

COMPETENCY: Ability to properly care for clothing.

SUB-COMPETENCIES: Ability to remove stains from clothing using home laundry products.

Ability to sort clothes properly for home laundry.

Ability to wash and dry clothes properly using a home clothes washer and dryer.

Ability to use proper finishing procedures on home laundry.

WORDS TO KNOW:

laundry
sort
pretreat
grease stains
nongrease stains
combination stains
laundry aid
detergent
bleach
fabric softener
starch
hand wash

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
State reasons for clothing care (C-K)	Look at a bulletin board on why it is important to care for your clothing. [NOTE TO TEACHER: Bulletin board should illustrate the following points: Laundrying makes our clothes look nice, smell and feel fresh, and last longer.] Listen to your teacher explain why clothing must be laundered. Why do we wash clothes? Why is it important to follow correct steps when washing clothes? How can you save money by washing your own clothes?
Cite care information given on garment labels (C-K)	Look at a transparency as your teacher points out the directions and information given on the garment label. (See p. 360.) What information is included on the garment label? How can information on a label be used to determine care required by a garment? What information included on the label would aid in determining correct laundry procedures to use on the garment?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Find labels in garments given to you by your teacher. Do the labels have the same information as the one your teacher has shown you? Your teacher will read the care instructions from some of the labels. Note the different types of instructions.
	Look at the different garment labels your teacher has displayed. Note the different sizes, shapes, colors, and designs of each label. Pick up a label and tell your classmates what the care instructions are. Can all garments be washed by machine?
Identify the steps used in preparing clothes for laundering (C-K)	Look at a poster showing the steps used in preparing clothing for laundering. (See pp. 361-364.) Listen as your teacher explains each step. In your own words, state the steps used in preparing clothes for laundering.
	Look at a poster showing ways to pretreat your laundry. (See pp. 356-367.) What does "pretreating" mean? Tell what each picture shows.
Identify sorting procedures (C-K)	Listen as your teacher describes how to sort clothes. What is meant by sorting clothes? Why must clothes be sorted? What groups are clothes sorted into? How can you tell in which group a garment should be placed?
	Watch as your teacher shows you how to sort clothes. Into how many groups did your teacher sort the clothes? What types of clothes are placed together?
	Look at a display of clothes your teacher has sorted. Notice the kind of clothes in each group. What would happen if the white and colored items were washed together? What would happen if heavily and lightly soiled items were washed together?
Describe procedures for sorting clothes (C-C)	Explain to your classmates the steps for sorting clothes.
Attempt to follow correct procedures for sorting clothes (P-GR)	Practice sorting a bundle of clothes. [NOTE TO TEACHER: Students can practice sorting clothes that were collected for welfare, clothes brought from home, or a faculty member's laundry.] Have your teacher check your work to make sure that you have placed each item in the correct group.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Play the game, "Let's Sort It," to practice sorting clothes. Divide the class into two groups. Each group will have a basket full of clothes. When the teacher says "Go" each group will begin to sort their laundry. When both groups are finished the teacher will check the sorted laundry piles of both groups. If a mistake is found the opposite group will tell in which pile the garment should be placed. [NOTE TO TEACHER: First start this game out using a few laundry items and gradually add more. Clothes given to welfare can also be used to practice sorting.] As your accuracy in sorting increases, play the game using a stop watch and time yourself to see who can sort the fastest and most accurately.
	Hold up one laundry item at a time. When you hold it up, the rest of the class will say which sorted clothes pile the item goes in. Take turns so everyone has a chance to hold up a laundry item.
Use correct procedure for sorting clothes (P-M)	Follow the correct steps for sorting clothes when doing laundry in the clothing services laboratory.
	Use the correct steps for sorting clothes when helping with your family's laundry.
Identify common stains found on clothing (C-K)	Listen as your teacher names common stains that are found on clothing. How does clothing get stained? What are the main kinds of stains? [NOTE TO TEACHER: The three main kinds of stains are grease stains, nongrease stains, and combination (grease/nongrease) stains. Common grease stains are: butter, car grease, vegetable oil, tar, and wax. Common nongrease stains are: blood, catsup, coffee, milk, mud, and fruit juices. Common combination stains are: chocolate, cream, gravy, ice cream, and mayonnaise.]
	Look at the different stains on a garment or fabric samples. In your own words tell what a stain is. [NOTE TO TEACHER: Prepare the garment or fabric samples by staining with chocolate, ink, lipstick, make-up, mustard, catsup, perfume, milk, grass, blood, and other common stains.] Repeat the name of the stain as your teacher names it. Which kind of stain is it?
	Take turns naming the kind of stain as your teacher points to a stain on a garment or on fabric samples.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Cut pictures from magazines of items that can stain clothes. Place pictures on a bulletin board in their correct categories. [NOTE TO TEACHER: Make a bulletin board that is divided into three categories for pictures of items that make grease stains, nongrease stains, and combination stains.]
State how to remove grease stains (C-K)	View a display of supplies used to remove grease stains. Listen as your teacher explains how grease stains are removed. Why must you remove a stain as soon as possible? Why is it important to remove a stain before washing a garment? What supplies are needed to remove grease stains? [NOTE TO TEACHER: Supplies for removing grease stains include liquid detergent and water. Liquid solvent may also be used for removing grease stains and may be taught to students capable of learning its use.]
	Watch as your teacher shows you how to remove a grease stain. Can all grease stains be removed? Why must you check to be sure the garment is washable before trying to remove stains? What should be done with a stained garment that is not washable? How much detergent should be used on the stain? How is the detergent worked into the fabric?
Describe procedures for removing grease stains (C-C)	Explain to your classmates how to remove a grease stain from clothing.
Practice procedures for removing grease stains (P-GR)	Practice removing grease stains on fabric samples with your teacher's help.
	Work in teams of two to remove grease stains from fabric samples. Have your teacher check your work.
Note how to remove nongrease stains (C-K)	View a display of supplies used to remove nongrease stains. Listen as your teacher explains how nongrease stains are removed. Can all nongrease stains be removed? What supplies are needed to remove nongrease stains? [NOTE TO TEACHER: Supplies for removing nongrease stains include cold water, liquid detergent, and a sponge.]
	Watch as your teacher shows you how to remove a nongrease stain. Do these steps differ from those for removing grease stains? Why is cold water used on the stain?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Practice removing nongrease stains (P-GR)	Practice removing nongrease stains on fabric samples with your teacher's help.
	Work in teams of two to remove nongrease stains from fabric samples. Have your teacher check your work.
Cite how to remove combination stains (C-K)	View a display of supplies used to remove combination stains. What is a combination stain? Listen as your teacher explains how to remove combination stains. How do the supplies differ from those used on grease and nongrease stains? [NOTE TO TEACHER: Supplies for removing combination stains include enzyme presoaking solution and water. Bleach and oxidizing agents may also be used in procedures for removing combination stains. These procedures may be taught to students capable of learning the uses of bleaches and oxidizing agents.]
	Watch as your teacher shows you how to remove combination stains. How do the steps differ from those used to remove grease and nongrease stains? Why is the stain soaked in cold water?
Practice removing combination stains (P-GR)	Practice removing combination stains with your teacher's help. Can all combination stains be removed?
	Work in teams of two to remove combination stains from fabric samples. Have your teacher check your work.
Explain the correct procedure for removing a stain (C-C)	Play "Spin the Bottle" to practice telling how to remove stains. [NOTE TO TEACHER: As the bottle spins, the person who is "it" names a stain. When the bottle stops the person it points toward must tell how to remove that stain. The game may also be played so that a stain removing agent is named and the person toward whom the bottle points names stains it will remove.]
Perform procedures for removing stains (P-M)	Draw a stained garment from a box. Use the correct steps for removing the stain. [NOTE TO TEACHER: Stain garments with common stains. Use garments which have been donated or purchased at rummage sales for students to use while removing stains.]
	Use the information you have learned on stain removal to help your family decide how to remove stains from clothes when doing laundry at home.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Identify laundry aids (C-K)	View a display of laundry aids as your teacher describes each type. Repeat the name of each type of laundry aid as your teacher says it. [NOTE TO TEACHER: Types of laundry aids include detergents, bleaches, and fabric softeners.]
	As your teacher holds up a type of laundry aid tell the class its name.
	Bring an empty container of laundry aid from your home. Show your classmates the container and tell them the type of laundry aid it is. Do your classmates agree with you?
Note the use of laundry detergent (C-K)	Look at detergent and soap products as your teacher explains their uses. Why must soap or detergent be used when washing clothes? Why should you always follow the manufacturer's directions? What information is shown on each detergent and soap product?
	Watch as your teacher shows you how to use detergent and soap for laundering clothes. How much detergent or soap is used? What is used to measure the detergent? What would happen if too much was used? What would happen if not enough detergent was used? When should the detergent or soap be placed in the washing machine?
Practice procedures for using detergent (P-P)	Measure detergent or soap and place it in the washing machine under your teacher's guidance.
	Practice measuring amounts of detergent or soap needed for a small wash load, a medium wash load, and a large wash load. Have your teacher check your work.
Explain the use of soap and detergent in hard and soft water (C-C)	Place one cup of hard water in a bottle and one cup of soft water (rainwater or commercially softened water) in another bottle. Add granular soap, ¼ teaspoon at a time, to each bottle and shake. Continue adding soap until there is one inch of suds. Your teacher will keep a record of the amount of soap that was used in each bottle. Which water used more soap? Your teacher will help explain the results. Repeat these steps using detergent.
Note procedures for using bleach (C-K)	Look at bleaching products as your teacher explains their uses. Why is bleach sometimes used while washing clothes?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
State the importance of using bleach carefully (C-K)	Watch as your teacher places a small amount of undiluted bleach on a fabric sample. [NOTE TO TEACHER: Use fabric samples of black, red, navy blue, etc. in a variety of fabrics.] Listen as your teacher explains damage that can occur to fabric with improper use of bleach. What happened to the color of the fabric sample? How can bleach damage the thread in a fabric? Can too much bleach damage fabric?
	Watch your teacher soak several types of fabric such as wash-and-wear, easy-care, or permanent press in a chlorine bleach solution. What is the result of the soaking? Did they turn yellow? How can you prevent the fabrics from turning yellow? Why is it important to read the label before using bleach?
Explain how to use bleach when washing clothes (C-C)	Watch as your teacher shows you how to use bleach when washing clothes. How do you know how much bleach to use? Why should you always follow the manufacturer's instructions for the amount of bleach to use? When should you add bleach to the wash? Explain to classmates how to use bleach when washing clothes. [NOTE TO TEACHER: Some washing machines have bleach dispensers. If students are working with this type of washing machine, they will need to be instructed on procedures for using bleach dispensers.]
Practice procedures for using bleach (P-GR)	Practice the steps for using bleach with your teacher's help. Did you use the correct amount of bleach? Were you careful not to spill or overflow the bleach when pouring and measuring the bleach? [NOTE TO TEACHER: Have students practice using water instead of bleach to avoid accidents. The water could be put in a bleach container to make the activity more realistic.]
	Work in teams of two to practice the steps for using bleach. Have your teacher check your work.
Identify use of fabric softeners (C-K)	Look at a display of fabric softener products as your teacher explains their uses. What do fabric softeners do? When should a fabric softener be used? [NOTE TO TEACHER: The three types of fabric softeners are: rinse-added fabric softeners, wash-added fabric softeners, and dryer-added fabric softeners. Each type of fabric softener is designed to be used in a different way.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Look at two articles of clothing, one that has been laundered with fabric softener and one that has not. [NOTE TO TEACHER: Secure two identical items, such as cotton towels, socks, or blouses. Wash and rinse together. Remove one item and place in a rinse with a fabric softener. Dry and let students compare the feel and appearance of the items.] In what ways do the two articles of clothing differ? Which article of clothing was laundered with fabric softener? Which article of clothing was not laundered with fabric softener? Why do we use a fabric softener?
State how to use a fabric softener (C-K)	Watch as your teacher shows you how to use a fabric softener. How much fabric softener should be used? What would happen if too much fabric softener was used? In your own words tell how to use a fabric softener.
Practice procedures for using a fabric softener (P-GR)	Practice the steps for using a fabric softener with your teacher's help.
	Work in teams of two to practice using a fabric softener. Have your teacher check your work.
Identify various types of starches (C-K)	Listen as your teacher tells you about the types of starches used when doing laundry. [NOTE TO TEACHER: Types of starches should include liquid, dry, and spray.] Why is starch used? Which starch costs the most? Which starch costs the least?
	Look at a display of various types of starches. In what forms is starch found in the stores? Take turns identifying whether a starch is dry, liquid, or spray.
State how to use starch (C-K)	Watch as your teacher shows you how to use starch. [NOTE TO TEACHER: Use old clothes or fabric samples to demonstrate using starch.] When are dry and liquid starches used? When is spray starch used? Which starch should you use to stiffen only the collar and cuffs of a garment? Why do we starch some garments? Do starched garments stay clean longer? Why?
Define fabrics that can be starched (C-K)	Watch as your teacher shows you fabrics that can be starched. [NOTE TO TEACHER: Fabrics with permanent finishes do not require starch. Untreated cottons take light starch.] How can the label in a garment help you decide whether a garment needs starch?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Give examples of garments that need starching (C-C)	Decide what garments from a load of laundry need to be starched. Why is it important to read the care label on the garment? Ask your teacher to check your decisions.
Practice starching garments (P-GR)	Follow the steps for starching a garment using the dry starch as your teacher shows you each step. Did you dissolve the powdered starch in hot water or cold water? How did you dip the garment into the starch solution?
	Follow the steps for starching a garment using a liquid starch as your teacher shows you each step. Did you follow the directions on the container and use it sparingly?
	Follow the steps for starching a garment with spray on starch as your teacher shows you each step. Did you use the spray starch before or during the ironing process? Did you use the spray starch on only the collar of the garment?
	Divide into teams of two and practice starching garments under your teacher's supervision.
Use the appropriate method when starching garments (P-M)	Carry out the steps for starching garments in the clothing service laboratory.
	Perform correct procedures for starching garments when helping with the laundry at home.
Identify procedures for hand washing laundry (C-K)	Listen as your teacher describes the process of hand washing. What laundry items should be hand washed? Why should certain laundry items be handwashed? How can garment labels be used to help determine if a garment should be hand washed?
	Watch as your teacher shows you how to hand wash laundry. What should the temperature of the wash water be? When should the detergent be added to the water? Why should you squeeze the suds through the garment? Why should you rinse the garment until no suds are present?
Practice hand washing laundry (P-GR)	Follow the steps for hand washing laundry as your teacher shows you each step. Be sure to rinse the garment until all the suds are removed.
	Divide into teams of two to practice hand washing laundry. Have your teacher check your work.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Identify the parts of a washing machine (C-K)	Look at the washing machine in the clothing service laboratory. Repeat the name of each part as your teacher says the name.
	Look at transparencies of washing machines. (See pp. 368-369.) State the name of the parts as your teacher points to them. Notice where the door is located on front loading and top loading machines.
Identify procedures for using the washing machine (C-K)	Listen as your teacher describes the steps in using a washing machine. Notice the following steps: (1) loading, (2) reading and setting the dial, (3) setting the control to the correct cycle, and (4) adding laundry aid to the equipment. [NOTE TO TEACHER: Procedures for use of washing machines will differ with various brands of machines.]
	Watch as your teacher shows you how to load a washing machine. What are the different sizes of wash loads that can be washed in a washing machine? How should the clothes be placed into the washing machine? What will happen if too many clothes were washed at one time?
Practice loading the washing machine (P-GR)	Practice the correct steps for loading the washing machine. Be sure you do not pack the clothes down.
	Work in teams of two to practice loading the washing machine. As your teacher calls out a size of a wash load, such as small, medium, or large, load the amount of items into the washing machine to make that size wash load. Have your teacher check your work.
Note how to use the controls on a washing machine (C-K)	Look at the controls on the washing machine in the VEH laboratory. Listen as your teacher explains the use of each control. Which control is used to set the water temperature? Which control is used to set the length of washing time?
	Watch as your teacher sets the controls on the washing machine. How is each control set? How is the machine started?
Practice setting the controls on a washing machine (P-GR)	Practice setting the controls on the washing machine with your teacher's help.
	Practice setting the controls on the washing machine for a setting that your teacher calls out. Have your teacher check your work.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Cite use of wash water temperatures (C-K)	Listen as your teacher explains how to select the wash water temperature. What are three temperature settings for washing clothes? What kinds of clothing articles should be washed in hot water? What kinds of clothings articles should be washed in warm water? What kind of clothes should be washed in cold water?
	Look at clothing articles as your teacher points out the wash water temperature appropriate for each article. What might happen if very bright colors were washed in hot water? What might happen if soiled white articles were washed in cold water?
	Tell the class what wash water temperature each article should be washed in as your teacher holds up clothing articles. Also tell classmates how to set the washing machine control for that setting.
State the purpose of the rinsing process (C-K)	Listen as your teacher explains the rinsing process of a washing machine. What does rinsing do to clothing? Why is a cold water rinse best for permanent press or durable press articles? How can cold water rinses save energy?
Describe the rinsing process (C-C)	Describe the rinsing process in your own words. What rinse water temperature is most often used? Where is the control on the washing machine for setting the rinse water temperature?
Note the use of washing machine cycles (C-K)	Watch as your teacher points to the different cycles on the washing machine. Repeat the name of each cycle as your teacher says it. What is a washing cycle? How many cycles does the washing machine have?
	Look at clothing articles that would be washed in each cycle as your teacher explains the use of washing machine cycles. What kinds of clothes would be washed in each cycle? How is the washing machine control set for the different cycles?
	Find clothing articles that would be washed in the washing cycle that your teacher names. Have your teacher check your work.
Identify a clothes dryer (C-K)	Look at a clothes dryer in the clothing service laboratory as your teacher points out various parts of the dryer. Repeat the name of each part as your teacher says it. Where do you place the clothes in the dryer? Where are the controls on the dryer?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
State how to set the control dial on the clothes dryer (C-K)	Examine the control dial on the clothes dryer used in the clothing service laboratory. Listen as your teacher explains how to set the contol dial of each drying cycle. How do you use the various drying cycles? How many drying cycles does the dryer have?
	Watch as your teacher shows you how to operate the clothes dryer. How do you set the control dial on the dryer? How do you start the dryer? What happens when you open the door of the dryer while drying clothes? How many clothes should be dried at one time?
Identify the correct dryer cycle for clothes (C-K)	Watch as your teacher shows you clothes to be dried in the clothes dryer. Are the clothes dried in different cycles? Which cycle is used most frequently? How can garment labels be used in selecting the proper drying cycle?
	Find clothing articles that would be dried in the drying cycle that your teacher names.
Practice procedures for using the dryer (P-GR)	Practice using the dryer with your teacher's help. Why must you remove clothes from the dryer as soon as the clothes are dry?
	Work in teams of two to practice drying clothing articles given to you by your teacher. Select the correct cycle and load size for drying the clothes. Have your teacher check your work.
Cite procedures for ironing clothes (C-K)	Look at two garments. Notice that one garment is wrinkled and one garment is free of wrinkles. Which garment has a good appearance? Which garment has a bad appearance? Which garment would you want to wear?
	Listen as your teacher describes the steps used in ironing clothes. Do all clothes need to be ironed? Why? What equipment is needed for ironing? [NOTE TO TEACHER: See lesson on pressing equipment, p. 139, for review of ironing equipment.]
Note the use of temperature settings on an iron (C-K)	Look at the control on the iron as your teacher explains how to select the correct temperatures for ironing various fabrics. How many settings does the iron have? What kinds of fabrics should be ironed at each setting? How do you set the control on the iron for various temperatures?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Look at garments to be ironed at each temperature setting. What would happen if you ironed a synthetic fabric at a high temperature? What would happen if you ironed cotton fabric at a low temperature? Why should you check the label of the garment before ironing it?
	Select a garment that would be ironed at the temperature your teacher names.
Identify the correct procedure for ironing (C-K)	Watch as your teacher shows you how to iron. What kind of motion is made with the iron? Why must you keep the iron moving? [NOTE TO TEACHER: See lesson on pressing, p. 272, for review of ironing procedures.]
Practice the correct procedure for ironing (P-GR)	Practice ironing several garments with your teacher's help. Which type of garment is easiest to iron? Which type of garment is the hardest?
	Follow the correct steps when ironing a garment. Have your teacher check your work.
Identify procedures for hanging laundry (C-K)	Watch as your teacher shows you how to hang different types of garments. What kinds of laundry needs to be hung? How can hanging clothes help prevent wrinkles? Why must garments be hung as soon as they come from the dryer or have been ironed? What do you do with fasteners on the garment?
Describe how to hang laundry (C-C)	Explain to the class how a garment should be hung as your teacher holds up a garment. Do your classmates agree with you?
Practice hanging laundry (P-GR)	Practice hanging various type of garments.
	Divide into two teams and play "Hang Ten" to practice hanging laundry. Your teacher will give each team a bundle of laundry. The laundry will include items that should be hung and items that should not be hung. The first group that selects the ten items that should be hung and hangs them correctly wins.
Use proper procedures for doing laundry (P-M)	Follow the steps for washing and drying laundry using the proper finishing technique.
	Help your parents at home by doing the laundry following the steps learned in class.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Note procedures for folding laundry (C-K)	Listen as your teacher describes the steps for folding laundry. What kinds of laundry should be folded? Why is it important to fold laundry?
	Watch as your teacher shows you how to fold laundry. How can folding clothes properly help prevent wrinkles?
Practice folding laundry (P-GR)	Practice folding laundry items with your teacher's help.
	Reach into a sack and draw out a laundry item. Follow the correct procedure for folding that item. Have your teacher check your work.
State safety rules for doing laundry (C-K)	Listen as your teacher explains safety rules to follow when doing laundry. What precautions should you observe when using laundry products?
	Play a game of "Round Robbin" to learn safety rules for doing laundry. Your teacher will begin by telling one safety rule. The student next to the teacher's right will be the second player. That student must say the rule the teacher gave plus one more rule. The game will proceed with each student repeating the previous rules and giving one of their own. Anyone that cannot remember the previous rules or says a rule incorrectly is out of the game. To get back into the game, the player may correctly give the safety rules after another player has missed.

WORDS TO KNOW
About Laundry Procedures
(Teacher Information Sheet)

launder - (verb) to wash and dry, iron, fold, or hang clothing and household items.

laundry - (noun) clothes or household items that need to be washed.

sort - to separate laundry into groups that can be washed together.

pretreat - to use special products to remove stains before washing.

grease stain - a spot made by something oily.

nongrease stain - a spot made by something that is not oily.

combination stain - a spot that has some oil in it.

laundry aids - products used to do laundry.

detergent - a soap-like laundry aid used to wash laundry.

bleach - a liquid or powder used to make laundry white and remove stains.

fabric softener - a laundry aid which makes laundry soft.

starch - a laundry aid used to stiffen fabric to make it look crisp.

hand wash - washing laundry with the hands and *not* the washing machine.

BASIC INFORMATION ON GARMENT LABELS
(Transparency)

TEXAS TOPS
Brand

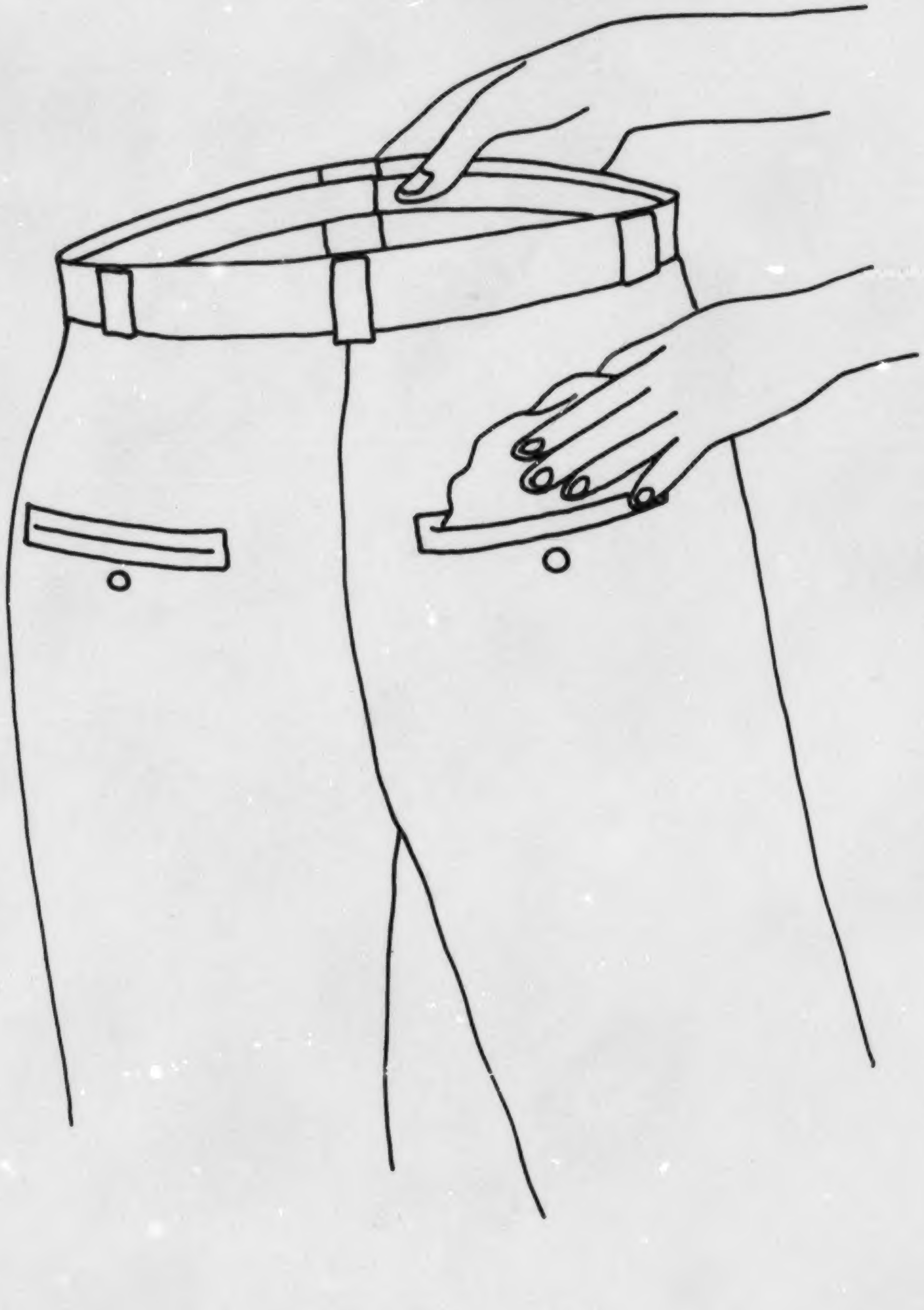
100% NYLON
Fabric Content

M
Size

MACHINE WASH WARM
LINE DRY ONLY–DO NOT IRON
Care Instructions

PREPARING LAUNDRY
(Poster)

Check all pockets, in pants as well as shirts and dresses.



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PREPARING LAUNDRY
(Poster)

Remove buttons or heavy items that cannot be washed.

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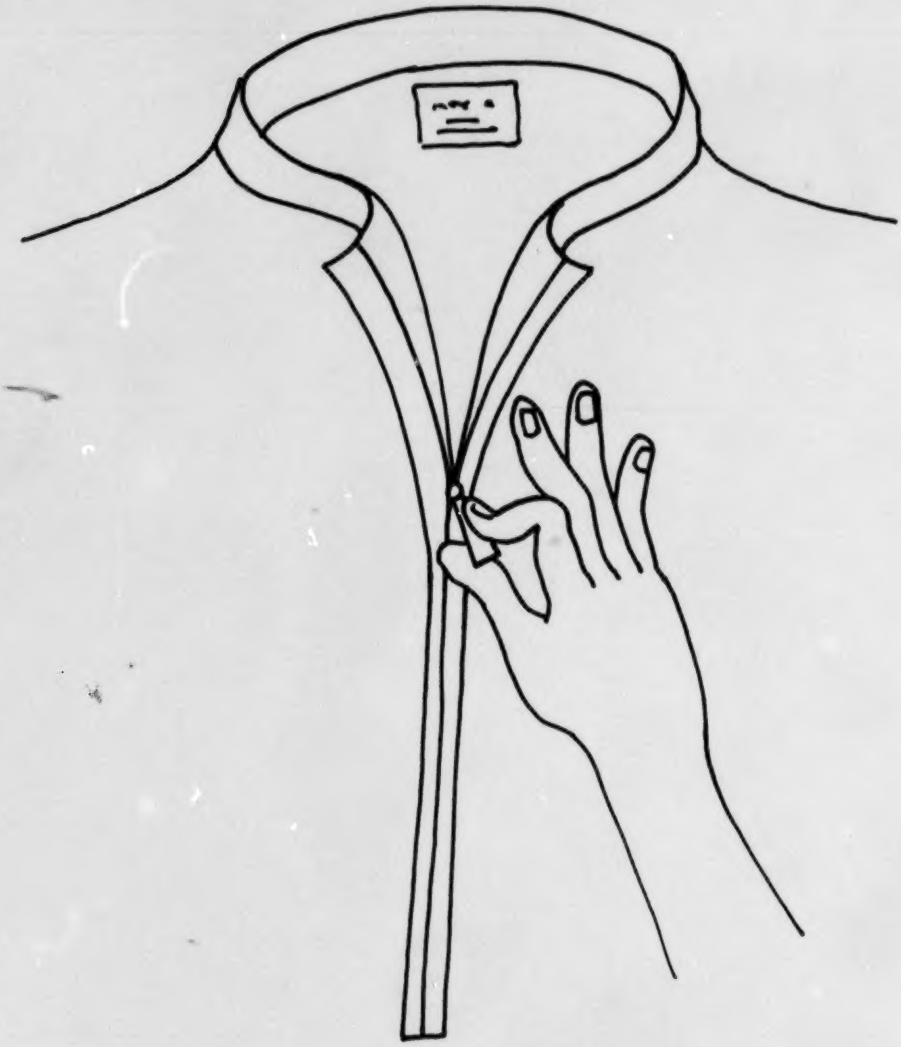
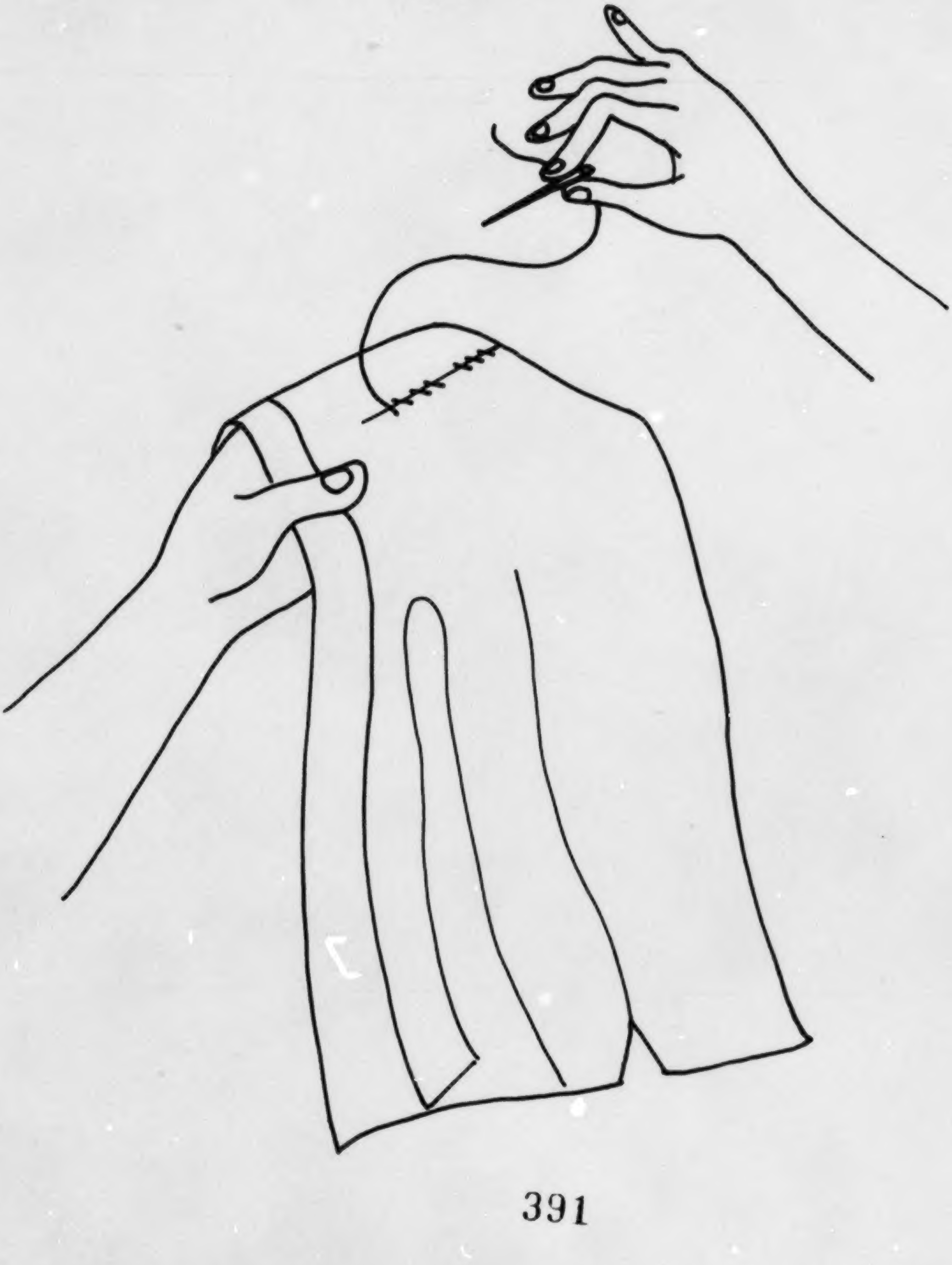
PREPARING LAUNDRY
(Poster)

Close all fasteners.



PREPARING LAUNDRY
(Poster)

Repair rips and snags.



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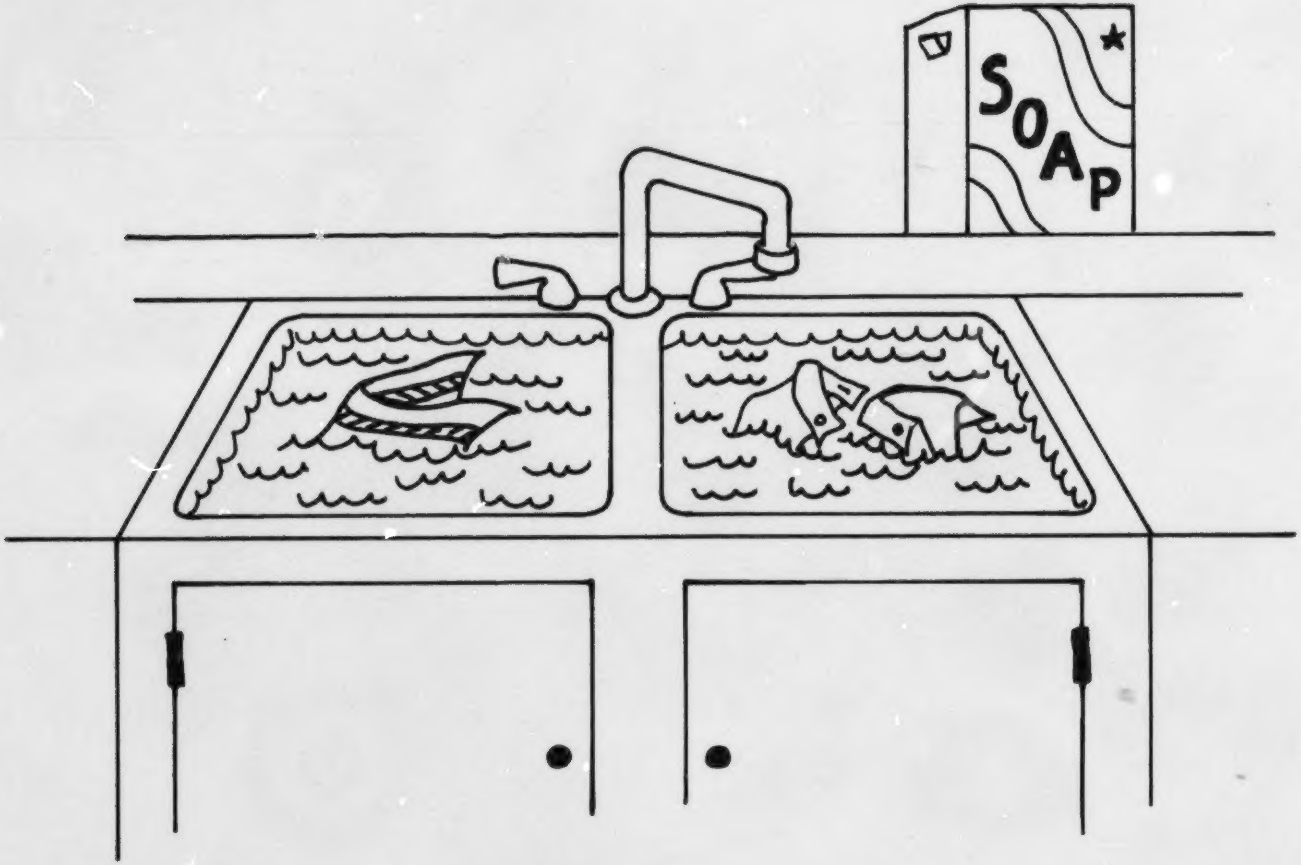
WAYS OF PRETREATING

(Handout)

You can *Soak* your laundry.

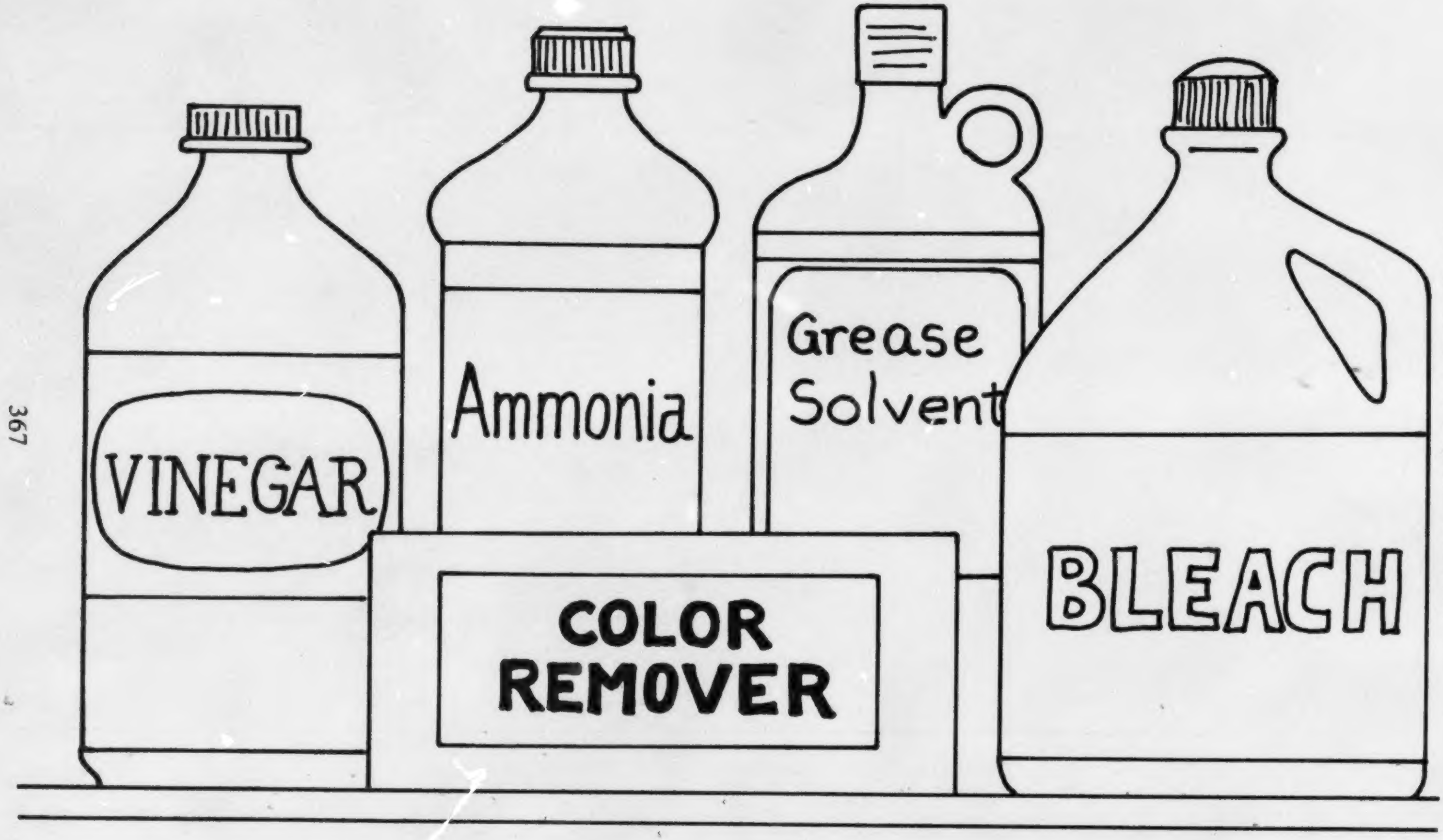


WAYS OF PRETREATING
(Handout)

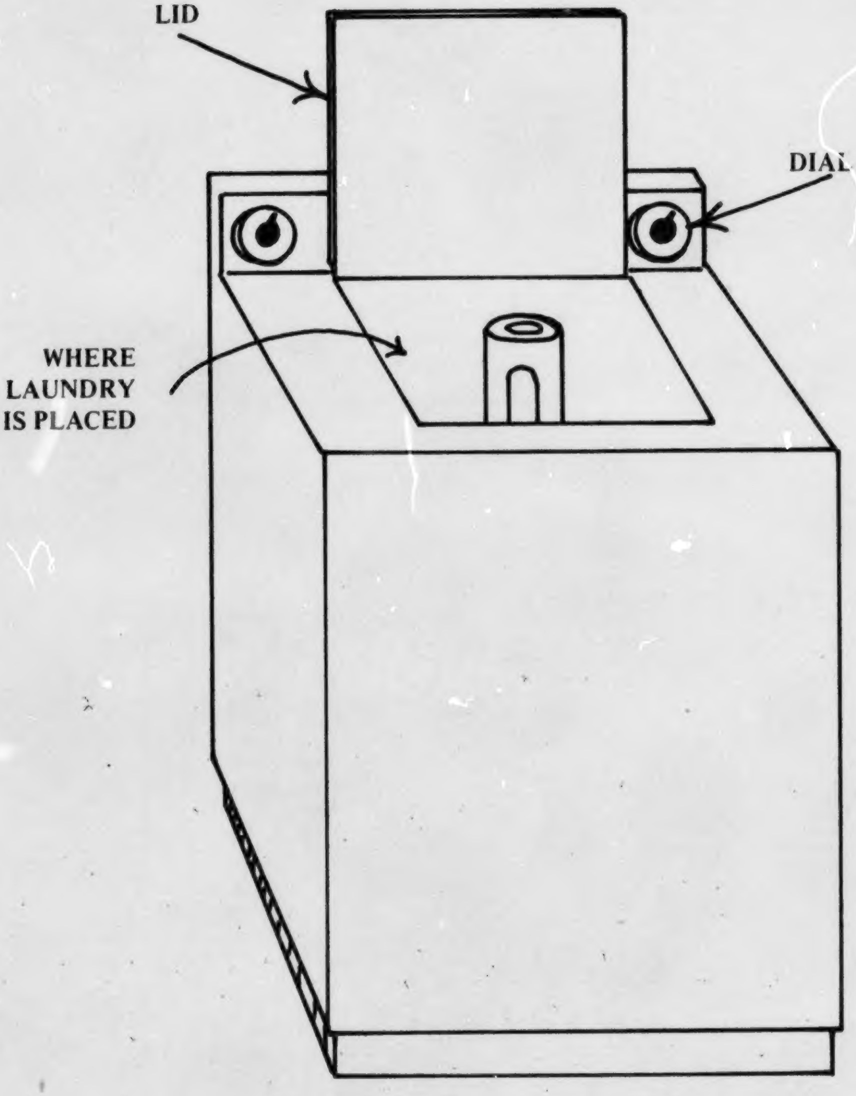
Applying *Detergent* helps get rid of stubborn stains.

WAYS OF PRETREATING
(Handout)

Remove stains with *Special Treatment.*

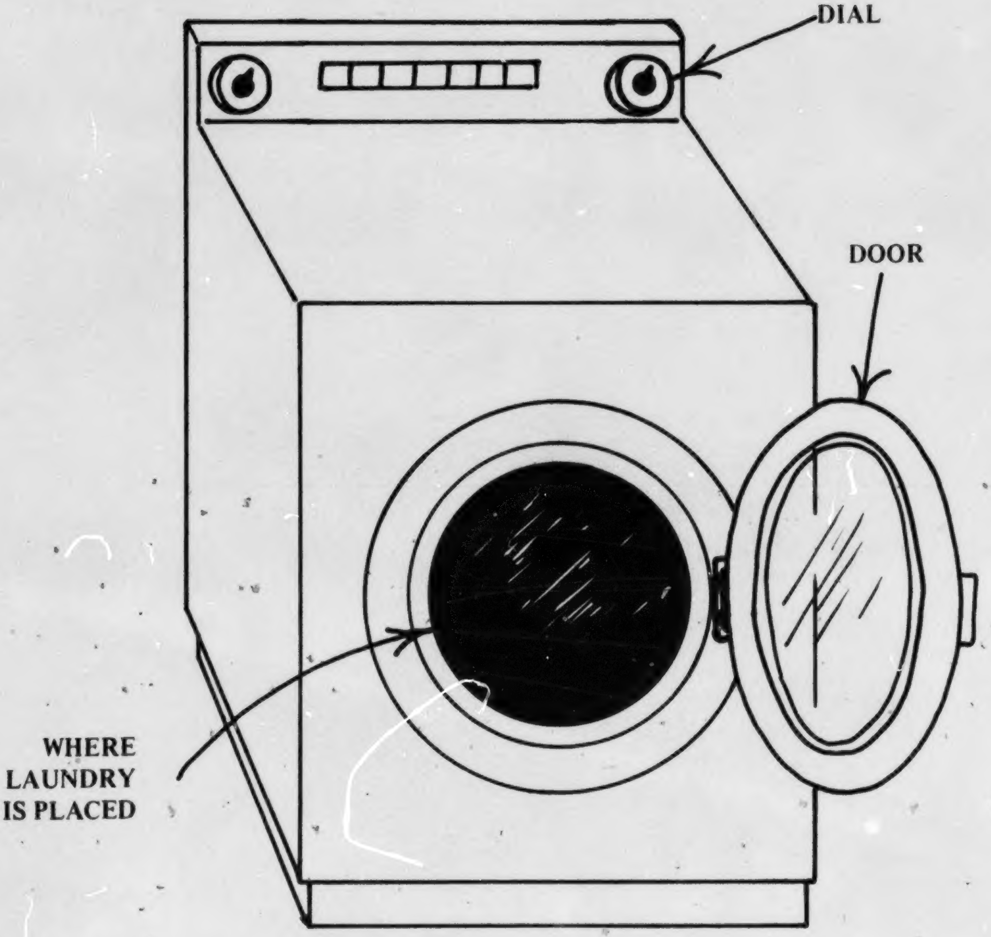


WASHING MACHINE
(Bulletin Board)



TOP LOADING AUTOMATICS

WASHING MACHINE
(Bulletin Board)



FRONT LOADING AUTOMATICS

LAUNDRY PROCEDURES

Commercial Laundry and Dry Cleaning

COMPETENCY: Ability to properly care for clothing.

SUB-COMPETENCIES: Ability to describe duties of workers in commercial laundry and dry cleaning establishments.

Ability to receive laundry and dry cleaning in a commercial establishment.

Ability to mark laundry and dry cleaning.

Ability to sort laundry and dry cleaning in a commercial establishment.

Ability to pre-spot laundry and dry cleaning using commercial products.

Ability to process laundry.

Ability to process dry cleaning.

Ability to inspect finished laundry or dry cleaning.

Ability to bag laundry or dry cleaning.

WORDS TO KNOW:

commercial laundry and dry cleaning establishment
laundromat
clerk
manager
delivery person
marker
spotter
dry cleaner
wet cleaner
finisher
inspector
bagger
alterations person
laundromat supervisor
ticket
receiving
marking
sorting
prespotting
finishing

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Identify commercial laundry and dry cleaning establishments (C-K)	Listen as your teacher describes commercial laundry and dry cleaning establishments. What do these establishments do?
	Tour a local commercial laundry and dry cleaning establishment. How many people were employed at the establishment? What jobs were being done? [NOTE TO TEACHER: Laundromats are also considered commercial laundry and dry cleaning establishments.]

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Identify jobs available in the commercial laundry and dry cleaning industry (C-K)	View slides of workers in the commercial laundry and dry cleaning industry. How many careers are available in the laundry and dry cleaning industry?
	Listen as your teacher describes the duties of each person. [NOTE TO TEACHER: Slides could be taken of workers in a commercial laundry and dry cleaning establishment. Careers in the laundry and dry cleaning industry include: clerk, manager, delivery person, marker, spotter, dry cleaner, wet cleaner, finisher, inspector, bagger, alterations person, and laundromat supervisor.]
Describe duties of workers in the laundry and dry cleaning industry (C-C)	Describe the job duties of a worker in the laundry and dry cleaning industry as your teacher names the worker.
	Play the game, "Who Am I." As your teacher describes the duties of workers in the commercial laundry and dry cleaning industry, name the worker that is being described.
Identify the procedures for receiving clothes in a laundry and dry cleaning plant (C-K)	Listen as your teacher describes the receiving system for commercial laundry and dry cleaning establishments. Who receives the laundry? What are the responsibilities of the clerk?
Identify tickets used in a commercial laundry and dry cleaning plant (C-K)	Examine a sample laundry or dry cleaners ticket. [NOTE TO TEACHER: If possible, have students look at actual tickets from a commercial laundry or dry cleaners.] What information is on the ticket? What are the purposes of tickets? Why is it important to write the complete and correct information on the ticket?
	Look at a transparency of a sample ticket as your teacher explains what information the clerk must write on the ticket when the clothes are received. (See p. 376.) Why should special instructions regarding stains, repairs, alterations, and kind of finish wanted be written on the ticket?
Practice procedures for receiving laundry and dry cleaning (P-GR)	Follow the steps for using tickets as your teacher shows you each step. What information have you placed on the ticket?
	Role play to show steps in receiving laundry from a customer. Be sure to use tickets in your role play.
Identify procedures for marking laundry and dry cleaning (C-K)	Listen as your teacher explains how clothes are marked at a laundry and dry cleaning establishment. Why are the clothes marked? Who marks the clothes? When are the clothes marked? In your own words, tell how clothes are marked at a laundry and dry cleaning establishment.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
	Look at clothing items that have been marked for identification in a laundry or dry cleaning establishment. What does the marking look like? What information does the marking have? [NOTE TO TEACHER: The methods for marking clothing will vary with various laundry and dry cleaning establishments.]
Describe procedures for marking clothes in a laundry and dry cleaning plant (C-C)	Explain why clothes are marked in a laundry and dry cleaning establishment. Why is accuracy in marking important? What are the marker's responsibilities? [NOTE TO TEACHER: The marker's responsibilities include: looking for rips and damage, for unusual stains, and for buckles, buttons, and ornaments that need to be removed before cleaning.]
Identify procedures for sorting clothes in a laundry or dry cleaning plant (C-K)	Listen as your teacher explains how clothes are sorted in a laundry and dry cleaning establishment. How are the clothes sorted? Who sorts the clothes? Why are the items to be laundered sorted into a different group from the items to be dry cleaned? Why is laundry weighed? [NOTE TO TEACHER: See lesson on home laundry, p. 345, for review of sorting laundry.]
Explain how clothes are sorted in a laundry and dry cleaning plant (C-C)	Describe how clothes are sorted in a laundry and dry cleaning establishment. Do your classmates agree with you?
Observe procedures for sorting clothes in a laundry or dry cleaning plant (P-P)	Watch as your teacher shows you the steps for sorting clothes in a laundry and dry cleaning establishment. How can you determine which clothes need to be laundered and which clothes need to be dry cleaned?
Practice procedures for sorting clothes (P-GR)	Practice the steps for sorting laundry and dry cleaning with your teacher's help. [NOTE TO TEACHER: Students can practice sorting old clothes, clothes collected for welfare, or clothes brought from home.]
	Divide into teams of two to practice the steps for sorting clothes. Place the items to be laundered in one pile and the items to be dry cleaned in another pile. Have your teacher check your work.
Cite the process of prespotting clothes used in a laundry and dry cleaning plant (C-K)	Listen as your teacher explains why clothes are prespotted in a laundry and dry cleaning establishment. Why must stains be removed from clothes before cleaning? Who removes stains from clothing in a laundry and dry cleaning establishment?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Explain why clothes are prespotted in a laundry and dry cleaning establishment (C-C)	Explain in your own words why clothes must be prespotted.
Cite the process for cleaning laundry in a commercial laundry and dry cleaning establishment (C-K)	Listen as your teacher describes the steps in washing laundry in a commercial laundry and dry cleaning establishment. How do the steps differ from those used when doing laundry at home? Is clothing sorted into groups? Are stains removed in a similar manner to home laundry? What is the difference between steps used in laundromats and steps used in laundry and dry cleaning plants? [NOTE TO TEACHER: Commercial laundry procedures are similar to home laundry procedures except for differences in the equipment used. See lesson on home laundry, p. 345, for review.]
Name the steps used in dry cleaning clothes (C-K)	Listen as your teacher explains the steps used in dry cleaning clothes after they have been received, sorted, and prespotted. [NOTE TO TEACHER: Include the following steps for dry cleaning: (1) place clothes in a large vat of cleaning fluid, (2) agitate clothes for 10-15 minutes, (3) rinse clothes in a clear solvent, and (4) remove clothes from machine.] How does dry cleaning clothes differ from using water to clean clothes? Why do some garments need to be dry cleaned instead of washed? State the steps used in dry cleaning clothes as your teacher writes them on the board.
Note the process of finishing clothes in a laundry and dry cleaning plant (C-K)	Listen as your teacher explains how clothes are finished in a dry cleaning plant. What does the finishing worker do in a laundry and dry cleaning plant? Why do some clothing items need to be pressed after they have been dry cleaned?
Identify pressing equipment used in a laundry and dry cleaning plant (C-K)	Look at pictures of pressing equipment used in a laundry and dry cleaning plant. Repeat the name of each piece of equipment as your teacher says it. [NOTE TO TEACHER: Pressing equipment used in a laundry and dry cleaning plant include: small sleeve board, steam iron, and apparel steamers. See p. 147 for illustrations.] As your teacher holds up a picture of a piece of pressing equipment used in a laundry and dry cleaning plant, name each piece of equipment.

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Describe the uses of pressing equipment used in a laundry and dry cleaning plant (C-C)	Listen as your teacher describes the use of pressing equipment used in a laundry and dry cleaning plant. What is each piece of equipment used for? [NOTE TO TEACHER: See lesson on pressing equipment, p. 139, for review of pressing equipment.]
Describe the uses of pressing equipment used in a laundry and dry cleaning plant (C-C)	Describe the use of a piece of pressing equipment as your teacher points to a picture of the equipment. Do your classmates agree with you?
Identify process of inspecting clothes in a laundry and dry cleaning plant (C-K)	Listen as your teacher describes how clothes are inspected after being pressed. What is the purpose of the inspection? Who inspects the clothes? What does the inspector check for?
Explain why clothes are inspected in a laundry and dry cleaning plant (C-C)	Explain, in your own words, why clothes are inspected after being pressed in a laundry and dry cleaning plant. Does inspection of a garment help to insure the customer's satisfaction? Does inspection help the laundry and dry cleaning establishment to keep a good reputation?
Note the use of bags in a laundry and dry cleaning plant (C-K)	Look at a bag that is used in a laundry and dry cleaning plant as your teacher describes the steps for bagging garments. What materials are needed for bagging? Why are the garments placed into bags? Who places the garments into bags?
Explain the use of bags in a laundry and dry cleaning plant (C-C)	Explain, in your own words, the reasons for using garment bags in a laundry and dry cleaning plant. How does bagging prevent cleaned clothing from being soiled during delivery?
Name the steps used in a laundry and dry cleaning plant (C-K)	Name all of the steps taken in a laundry and dry cleaning plant as your teacher writes them on the board. [NOTE TO TEACHER: The steps taken in a laundry and dry cleaning plant include: receiving, marking, sorting, prespotting, dry cleaning or laundering, finishing, and bagging.]
Practice following the steps used in a laundry and dry cleaning plant (P-GR)	Obtain a bundle of laundry and work as a class to follow the process used in a commercial laundry, from receiving to bagging. Ask your teacher for help if needed.
	Obtain dirty clothes to launder or dry clean. [NOTE TO TEACHER: Clothing may be obtained from the school cafeteria, atheletic department, children's home, nursing home, or nursery school.] Make out a receiving ticket, mark and sort the laundry, prespot where needed, launder or dry clean, finish, and bag. Rotate jobs until each class member can perform each job well.

WORDS TO KNOW
About Commercial Laundry and Dry Cleaning
(Teacher Information Sheet)

commercial laundry and dry cleaning establishment - a place of business that cleans fabrics by washing or dry cleaning.

laundromat - a commercial laundry establishment equipped with coin-operated and self-service washing machines and dryers. It may also be equipped with coin-operated dry cleaning machines.

clerk - a person who receives and returns laundry and dry cleaning to customers in a laundry and dry cleaning plant. This person may also be responsible for receiving and recording payments made by customers.

manager - person in charge of a laundry and dry cleaning establishment.

delivery person - a person who picks up and delivers laundry and dry cleaning.

marker - person in a laundry or dry cleaning establishment who labels each customer's laundry and dry cleaning items.

spotter - person in a laundry and dry cleaning establishment who removes spots from fabric.

dry cleaner - person who cleans fabric using solvents.

wet cleaner - person who cleans fabrics using water and detergent.

finisher - person who smoothes out wrinkles from fabric in a laundry and dry cleaning plant.

inspector - person who checks items that have been laundered or dry cleaned to see if they are clean and pressed. This person also checks to see that any trimmings that were removed from garments have been put back on.

bagger - person who places the items that have been laundered or dry cleaned in a plastic bag so that they will not get dirty.

alterations person - person who changes a garment to make it fit better.

laundromat supervisor - person who is in charge of a self-service laundry.

ticket - a card or tag that identifies the name of customer and items left for laundry or dry cleaning. It also states what is to be done to articles of clothing and when they should be ready.

receiving - done by a clerk who write the ticket.

marking - an inspection process used before clothes are cleaned to find and mark stains, damage that needs repairing, and ornaments that should be removed.

sorting - grouping together laundry items according to color, amounts of soil, and fabrics.

prespotting - a pretreating process used on stains before items are laundered or dry cleaned.

finishing - pressing to remove wrinkles.

SAMPLE TICKET

LAUNDRY ONE STOP SERVICE DRY CLEANING

6 LOCATIONS TO SERVE YOU

Best Dressed

LAUNDRY AND DRY CLEANERS

"Being Well Groomed Is An Asset"

ANYWHERE
TEXAS

A 25134

NAME John Doe

2)	Shirts white		2 Pc. Gab. Tan
	Shirts		2 Pc. Blue Suit
	Blouses		Shirts
	Pants		Jackets
	Overalls		Sweaters
	Jumpers		Ties
	Skirts		Coats
	Dresses	/	Trousers
	Uniforms		
	Caps		
	H'dkerchiefs		
	House Coats		
	Pajamas		
	Undershirts		
	Undershorts		
	Unionalls		
	Slips		
	Brassieres		
	Panties		
	Aprons		

Wed.
D-27
Replace zipper

AMOUNT

Notice—Unless list of articles is sent, our count must be accepted. Claims must be accompanied by original list and made within 48 hours.

NAME John Doe

	Blankets		Napkins
	Quilts		Bath Towels
	Sheets		Hand Towels
	Pillow Cases		Laundry Bag
	Bed Spreads		
	Bath Mats		
	Aprons		
	Table Cloths		

(Laundry Use Only)
PIN NO.
545

Finish	Fluff			Wet Wash	Fluff
✓		Shirts ☑ Pants ☑	Dresses ☐ Uniforms ☐		Towel

NAME John Doe

A 25134

AMOUNT

LAUNDRY PROCEDURES

Packing and Storing Clothes

COMPETENCY: Ability to properly care for clothing.

SUB-COMPETENCY: Ability to use proper packing and storing techniques for clothing.

WORDS TO KNOW:
clothing storage
mildew
moths
mothballs

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Identify reasons for storing clothes commercially (C-K)	Listen as your teacher explains the reasons why clothes are stored commercially. How can storing help protect clothes?
Cite procedures used in commercial storage of clothing (C-K)	Visit an establishment that stores clothes commercially. What types of containers are used? Where are the clothes stored?
	Ask a drycleaner employee to explain steps for storing clothes commercially. How much does it cost to store garments? When are garments cleaned and pressed? How are they stored? What process is used with clothes that will be stored for several years such as wedding gowns? What procedure is used in storing out-of-season clothes such as furs, winter suits, coats, and dresses? [NOTE TO TEACHER: Ask a drycleaner employee to visit your classroom.]
Note reasons for treating clothes before storing (C-K)	Listen as your teacher explains the reasons that clothes are treated before being stored. Why are clothes cleaned before being stored? What would happen if stains were left in clothing being stored? How could insects cause damage to clothes?
Identify supplies used in commercial storage of clothing (C-K)	Look at a display of products used in commercial storage of clothing. How is damage by mildew, moths, and other insects prevented in stored clothing? How are stored clothes protected by being placed in bags and boxes? Why are sturdy hangers used for hanging clothes to be stored?
Observe procedures for packing clothes to be stored (P-P)	Watch as your teacher demonstrates how to fold clothes to be stored. Why are some clothes folded for storing instead of being placed on a hanger? Why are clothes folded neatly for storing? Why are light and dark colored clothes separated in storage? Why are washable garments washed before storing? Why are garments stored unstarched?

OBJECTIVES	LEARNING AND EVALUATION EXPERIENCES
Describe procedures for folding clothes to be stored (C-C)	Explain the steps for folding clothes to be stored in your own words.
Practice folding clothes to be stored (P-GR)	Practice steps for folding clothes to be stored with your teacher's help.
	Work in teams of two to practice folding various items of clothing to be stored. Have your teacher check your work.
Note procedures for hanging clothes to be stored (C-K)	Watch as your teacher demonstrates how to hang clothes to be stored. Why do some clothes need to be hung instead of folded? What kind of hangers should be used? How can hanging clothes correctly help prevent wrinkles?
Identify garments that are hung correctly (C-K)	Look at two garments, one that is hung correctly, and one that is hung incorrectly. Tell the class which garment is hung correctly and explain your answer. [NOTE TO TEACHER: Repeat this experience several times.]
Practice hanging clothes to be stored (P-GR)	Practice steps for hanging clothes to be stored with your teacher's help.
	Work in groups of two to practice hanging various clothing items to be stored. Have your teacher check your work.
Perform procedures for hanging and folding clothes to be stored (P-M)	Look at garments given to you by your teacher. Hang or fold each garment following the appropriate procedure. [NOTE TO TEACHER: A clothing exchange of maternity clothes or children's clothes would provide opportunities for cleaning and storing out-of-season clothing.]

WORDS TO KNOW

About Packing and Storing Clothes

(Teacher Information Sheet)

clothing storage - a space where clothes that are not being worn are placed to be protected.

mildew - a thin whitish growth that damages clothes.

moths - an insect that damages clothing by eating holes in the fabric.

mothballs - chemicals used to keep moths out of clothing.

LEARNER PROGRESS RECORD

The VEH teacher's records of each student's progress can provide information which aids in determining the student's job-related abilities, potential employability, and needs for additional training. The Learner Progress Record provides a concise and effective tool for summarizing each student's progress and for planning the student's future education.

Although the VEH teacher will keep more detailed records of student progress during the year, it is useful to summarize the student's progress more concisely at the end of the year. The Learner Progress Record can be used to show the progress the student has made during the year toward achieving the competencies needed by entry-level clothing service workers. This summary is then available for communicating with the student, parents, special education teachers, academic teachers, counselors, diagnosticians, resource teachers, Vocational Adjustment Counselors, school administrators, and others regarding the student's progress.

The Learner Progress Record is an especially useful tool for planning for the VEH student's future educational needs. It can provide guidance for developing both initial and subsequent Individual Educational Plans (IEP's) for the special education student. It can also provide valuable insights needed by the Vocational Adjustment Counselor in planning job placement for the special education student.

LEARNER PROGRESS RECORD

NAME: ______________________

PROGRESS RECORD				COMPETENCIES AND SUB-COMPETENCIES
INTRODUCED	ATTEMPTED	IMPROVING	COMPETENT	
				Ability to select, store, use, and care for the small sewing tools.
				Ability to identify small hand sewing tools.
				Ability to identify, use, and store tools used for measuring.
				Ability to identify, safely use, and store tools used for cutting.
				Ability to identify, use, and store tools used for marking.
				Ability to effectively use and care for sewing machines.
				Ability to set up the domestic sewing machine.
				Ability to identify the parts of the domestic sewing machine.
				Ability to care for the domestic sewing machine.
				Ability to identify the different types of commercial sewing machines.
				Ability to recognize the stitch each commercial sewing machine makes.
				Ability to clean and oil commercial sewing machines.
				Ability to follow safe procedures when using commercial sewing machines.
				Ability to safely use and care for pressing equipment.
				Ability to identify pressing equipment.
				Ability to select appropriate pressing equipment for a task.
				Ability to describe the safe use and care of irons.
				Ability to describe the use and care of an apparel steamer.

PROGRESS RECORD				COMPETENCIES AND SUB-COMPETENCIES
INTRODUCED	ATTEMPTED	IMPROVING	COMPETENT	
				Ability to safely perform basic sewing skills.
				Ability to use sewing tools and equipment safely.
				Ability to select appropriate hand stitches.
				Ability to make basic hand stitches.
				Ability to thread the domestic sewing machine.
				Ability to fill a bobbin.
				Ability to set the domestic sewing machine for different stitches.
				Ability to operate the domestic sewing machine.
				Ability to use machine attachments.
				Ability to adjust machine chair and knee lift to fit operator.
				Ability to thread the lockstitch machine.
				Ability to operate the lockstitch machine.
				Ability to thread the serger.
				Ability to operate the serger.
				Ability to thread the blindstitch machine.
				Ability to operate the blindstitch machine.
				Ability to use a dry or steam iron.
				Ability to use a press cloth.
				Ability to press various garment parts.
				Ability to press a variety of fabrics.
				Ability to use an apparel steamer for pressing.

PROGRESS RECORD				COMPETENCIES AND SUB-COMPETENCIES
INTRODUCED	ATTEMPTED	IMPROVING	COMPETENT	
				Ability to apply basic construction techniques to making garments.
				Ability to perform basic construction techniques.
				Ability to attach fasteners to garments.
				Ability to select and apply appropriate hem finishes.
				Ability to recognize the steps in assembly line production.
				Ability to participate effectively in the assembly line production of garments.
				Ability to rip out stitches from garments.
				Ability to select the proper tool for ripping out stitches.
				Ability to make simple garment repairs and alterations.
				Ability to select and use appropriate techniques to make garment repairs.
				Ability to interpret alteration markings.
				Ability to make simple alterations to men's and women's garments.
				Ability to properly care for clothing.
				Ability to remove stains from clothing using home laundry products.
				Ability to sort clothes properly for home laundry.
				Ability to wash and dry clothes properly using a home clothes washer and dryer.
				Ability to use proper finishing procedures on home laundry.
				Ability to describe duties of workers in commercial laundry and dry cleaning establishments.
				Ability to receive laundry and dry cleaning in a commercial establishment.
				Ability to mark laundry and dry cleaning.
				Ability to sort laundry and dry cleaning in a commercial establishment.

PROGRESS RECORD				COMPETENCIES AND SUB-COMPETENCIES
INTRODUCED	ATTEMPTED	IMPROVING	COMPETENT	
				Ability to pre-spot laundry and dry cleaning using commercial products.
				Ability to process laundry.
				Ability to process dry cleaning.
				Ability to inspect finished laundry or dry cleaning.
				Ability to bag laundry or dry cleaning.
				Ability to use proper packing and storing techniques for clothing.

REFERENCE LIST
FOR
VEH CLOTHING SERVICE GUIDE

1980

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Department of Occupational
Education and Technology
Homemaking Education
Austin, Texas

VEH CLOTHING SERVICE GUIDE

Books

T *Alterations and How to Make Them.* Great Neck, New York: Kogos Publications Company, 1967. 44 pp. ($5.95, l.p. Alterations on men's garments: sack coats, frock coats, raglans, vests, and pants; printed in English and French.)

T Beitker, Ethel Jane. *Creating from Remnants: Stitchery With Imperfect Fabrics.* New York, New York: Sterling Publishing Co., Inc., 1974. ($3.58, l.p. Tools and equipment, simple stitches, throw pillows, tote bags, clothing, quilts, and wall hangings.)

T Brinkley, Jeanne, and Aletti, Ann. *Altering Ready-to-Wear.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1976. 399 pp. ($14.95, l.p. Opportunities in the needle trade; the garment industry; equipment, tools, and supplies; learning about fabrics; pressing; commercial sewing methods; flattering the female figure; fitting women's clothes, standard alterations for women; fitting and altering hemlines; finishing touches; fitting and altering menswear; developing speed and efficiency; working with people; getting a job; and establishing your own business.)

Butman, Grace A. *New Fabrics, New Clothes, and You.* Austin, Texas: Steck-Vaughn Company, 1966. 92 pp. ($1.75, l.p. Cotton, silk, wool, textile terms, finishes, tags, and facts about fabrics. G: 6; SBF.)

T *Clothing Assistant,* Rev. ed. Lubbock, Texas: Home Economics Instructional Materials Center, 1976. ($12.00, l.p., teacher copy in Texas; $15.00, l.p., teacher copy out-of-state; $7.50, l.p., student copy in Texas; $10.00, student copy out-of-state. Fabric characteristics, sewing tools and equipment, sewing machines, stitching techniques, pressing techniques, clothing repairs, fitting procedures, alteration of men's and women's clothing, custom clothing construction, basic construction techniques, couture techniques, and industrial sewing. G: 9, student edition.)

T *Clothing Services–Coordinated Vocational Academic Education.* Lubbock, Texas: Home Economics Instructional Materials Center, 1974. 318 pp. ($10.00, l.p., in Texas; $12.50, l.p., out-of-state. Industrial and domestic sewing tools and equipment, basic sewing and finishing techniques, garment construction, customer relations, assembly-line procedures, laundering and dry-cleaning, and packing and storing.)

T *Coat's and Clark's Sewing Book.* 3rd ed. Wayne, New Jersey: Western Publishing Company, Inc., 1976. 288 pp. ($7.95, l.p. Order from Coats and Clark, Inc. Alterations on finished garments, assembling a garment, decoration, easing, fitting a garment, hand sewing, hems, lining, machine stitching, marking, pleats, seams and seam finishes, sleeves, tucks, waistbands, and zippers.)

S	State adopted textbook	SBF	Sex bias free
T	Teacher reference	SBI	Sex bias illustration
l.p.	list price	SBL	Sex bias language
s.p.	school price	SS	Sex stereotyping
G	Grade level readability		

ST Craig, Hazel Thompson. *Clothing, A Comprehensive Study*. Rev. ed. New York, New York: J.B. Lippincott Company, 1973. 468 pp. ($12.60, l.p. NOTE: 1968 Texas state adopted text. Origin and evolution of clothing, fashion, and the garment industry; social and psychological aspects of clothing; selection and care of clothing; careers in clothing and textiles; and construction of clothing.)

T Dewey, Margaret. *Teaching Home Economics to Special Students*. Portland, Maine: J. Weston Walch, Publisher, 1976. 152 pp. ($8.35, s.p. Personal adjustment, health and safety, food, clothing, sex education, consumer education, money management, housing, home care, and family care.)

T Dunn, Lucille; Bailey, Anetta; and Draper, Wanda V. *Steps in Clothing Skills*. Peoria, Illinois: Chas. A. Bennett Co., Inc., 1970. 528 pp. ($12.28, l.p. Grooming, manners, fabrics, design and color, wardrobe shopping, clothes care, storage, sewing equipment, pattern, fabric cutting, pressing, and career opportunities.)

T Erwin, Mabel D., and Kinchen, Lila A. *Clothing for Moderns*. 5th ed. New York, New York: Macmillan Publishing Company, 1974. 516 pp. ($13.50, l.p. Wardrobe information, altering ready-to-wear, dressmaker tailoring, pattern designing, and dress decoration.)

T Faiola, Linda. *Clothesmaking*. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1977. 182 pp. ($4.89, s.p. Equipment; fabric; blocking–patterns; layouts and cutting; sewing by hand; marking; construction: seam finishes, zippers, sleeves, interfacings; and glossary.)

T Funaro, Diana. *The Yestermorrow Clothes Book: How to Remodel Secondhand Clothes*. Radnot, Pennsylvania: Chilton Book Company, 1976. 164 pp. ($9.95, l.p. Cleaning and freshening, mending, decorating, recycling, remodeling dresses, transforming lingerie and loungewear into street clothes, refitting and redesigning sweaters, reworking coats and jackets, and altering and updating jeans.)

T Gaetan, Manual. *Sewing Machine Operator's Training Handbook*. Columbia, South Carolina: Bobbin Publications, Inc., 1972. 121 pp. ($3.75, l.p. Training in the needle trades industry; tables, illustrations, forms, and photographs.)

T Graef, Judy Lynn, and Strom, Joan Buescher. *Concepts in Clothing*. New York, New York: McGraw-Hill Book Company, 1976. 280 pp. ($11.44, l.p. Modern concepts of self-image, consumer intelligence, clothing selection and management, decision making, and career information.)

T Hannan, Watson M. *Mechanics of Sewing*. Great Neck, New York: Kogos Publications Company, 1963. 64 pp. ($8.95, l.p. Stitch formation, fittings and attachments, lockstitch machines, chainstitch machines, and automatic machines.)

T Hannan, Watson M. *The Methods of Sewing*. Great Neck, New York: Kogos Publications Company, 1963. 85 pp. ($7.95, l.p. Methods; preparation for sewing; the sewing operation; disposal of work; bringing work to the operator; moving the work to the machines; method improvement; sewing machine maintenance; and manufacturing and sewing machine terms.)

Hanson, Margaret J. *The Care We Give Our Clothes.* Austin, Texas: Steck-Vaughn Company, 1966. 94 pp. ($1.75, l.p. Daily, weekly, and seasonal care of clothes, ways to remodel clothes, and places to keep clothes. G: 6; SBF.)

Hillinger, Yvonne. *When You Go To Work–A Book for the Needle Trades.* New Brunswick, New Jersey: New Jersey Vocational-Technical Curriculum Laboratory, 1968. 200 pp. ($3.25, l.p. Preparing students with limited vocabulary for the world of work; humorously illustrated concepts include: the factory, a good worker, the job, shop mathematics, clothing for women, and clothing for men. G: 7; SBI; SBL; SS.)

T Jones, Jan. *Clothing–Your Way.* Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1977. 186 pp. ($6.60, l.p. Latest developments in clothing construction; use of modern fabrics, techniques, and products; consumer information: what, where, and how to buy necessary materials; suggestions for recycling clothing; and careers in clothing-related fields.)

T Jones, Sally. *Sewing Techniques for the Blind Girl.* Rev. ed. Louisville, Kentucky: American Printing House for the Blind, 1978. ($1.50, l.p. Machine sewing for the beginner, patterns, layout, cutout, garment construction, installation of zipper in a front or back seam, gathering, threads, pockets, buttons and buttonholes, snaps, hems, dress forms, and darts.)

T Lawson, Donna. *Oldies But Goodies.* Altoona, Pennsylvania: Butterick Publishing, 1977. 200 pp. ($5.22, s.p. How to restyle yesterday's clothing and castoffs into exciting new fashions for today.)

T Lewis, Virginia Stolpe. *Comparative Clothing Construction Techniques.* Minneapolis, Minnesota: Burgess Publishing Co., 1968. 393 pp. ($15.95, l.p. Creative approach to clothing construction, different techniques can be used to achieve a particular effect depending on fabric, style and intended use of the garment, speed and custom tailoring methods, and special techniques for menswear.)

T *The McCall's Needlework Treasury.* New York, New York: Random House, Inc., 1964. 390 pp. ($9.95, l.p. Embroidery, quilts, rugs, knitting, crochet, tatting, hand-loom weaving, netting, knotting, braiding, and technical aids.)

T *McCall's Sewing Book.* Rev. ed. New York, New York: Random House, Inc., 1968. 308 pp. ($7.95, l.p. Patterns, fabric, shaping materials, notions, sewing tools and equipment, pattern alteration, fabric preparation, layout, cutting, and construction techniques.)

T McDermott, Irene E., and Norris, Jeanne L. *Opportunities in Clothing.* Rev. ed. Peoria, Illinois: Chas. A. Bennett Co., Inc., 1972. 350 pp. ($10.68, l.p. Careers in the clothing field, color, line, design, fabric, merchandising clothing, industrial sewing, clothing construction, fitting, and alterations.)

T McMurty, Rosemary, ed. *How to Fit Book.* Rev. ed. New York, New York: The McCall Pattern Company, 1973. 112 pp. ($1.17, s.p. Solving fitting problems and tips for easy pattern adjustment for men, women, and children.)

T *Mechanics of Pressing.* Great Neck, New York: Kogos Publications Co., n.d. 134 pp. ($8.95, l.p. History and importance of pressing, handling of fabrics, variety and selection of pressing machine models, pressing equipment and supplies, proper care of equipment, art of pressing, and principles of installation.)

T Morgan, Miriam. *Make Your Own Alterations: Simple Sewing the Professional Way.* New York, New York: Arco Publishing Co., 1970. 96 pp. ($4.95, l.p. Mending, altering, and tailoring garments.)

T Perry, Patricia, ed. *Ready Set Sew: The Butterick Sewing Book.* New York, New York: Butterick Publishing, 1972. 320 pp. ($5.97, s.p. Preparation for sewing, alterations, and sewing techniques.)

Piltch, Benjamin. *Mack Works in a Clothing Factory.* Phoenix, New York: Frank E. Richards Publishing Co., Inc., 1971. 62 pp. ($1.95, l.p. Mack's experience after leaving school: going for an interview, working in the garment industry, problems faced by an employee and employer, and the adjustments in meeting them. G: 7; SBF.)

Power Sewing. New Brunswick, New Jersey: New Jersey Vocational-Technical Curriculum Laboratory, 1971. 261 pp. ($3.75, l.p. Safety and care of power sewing machine, single-needle lockstitch machine, primary sewing operations, single-needle sewing projects, zig-zag machine, two-needle lockstitch machine, special machines, pressing, handling at work, repairs, folding, and counting. Written to teach power sewing to deaf students. Also suitable for students with severe reading difficulties. G: 7; SBI.)

T *Press Cladding and Pressing Efficiency.* Great Neck, New York: Kogos Publications Company, n.d. 32 pp. ($5.95, l.p. Press cladding, pressing synthetic fabrics, steam using equipment, ventilation, and heat extraction from factories.)

T Relis, Nurie, and Strauss, Gail. *Sewing for Fashion Design.* Reston, Virginia: Reston Publishing Company, Inc., 1978. 162 pp. ($10.10, s.p. Order from Prentice-Hall, Inc. Seventh Avenue sewing procedures that have been taught in the Design Room Techniques Course at the Fashion Institute of Technology; use of materials; temporary and permanent stitches; seam and seam finishes; preparation, layout, and cutting; and assembling procedures.)

T Servian, Martha S. *Fashion and Textiles Careers.* Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1977. 122 pp. ($3.96, l.p., paperback. Textiles and clothing; tomorrow's fashions; fashion merchandising and sales promotion; career opportunities in the home sewing industry, communications, and in teaching; and a business of your own.)

T Simons, Violet, K. *Very Basic Book of Sewing, Altering, and Mending: 999 Pictures Show You How.* New York, New York: Sterling Publishing Co., Inc., 1977. 256 pp. ($6.20, l.p. Tools; threading a needle; basic hand sewn hems; fastenings; buttonholes; binding; ruffles and piping; easy things to make with ruffles and piping, without a pattern; alterations; pattern jargon; cutting out; finishing touches; working with fur; curtains; and valances.)

Singer Student's Manuals. Murfreesboro, Tennessee: The Singer Company, 1972. 75 pp. each. ($0.20, s.p. Book I: Know Your Industrial Sewing Machine; Book II: How to Prepare and Care for an Industrial Sewing Machine; Book III: How to Operate an Industrial Sewing Machine; Book IV: How to Build Industrial Sewing Skills. G: 9; SBF.)

T Sutherland, Isabel, ed. *Good Housekeeping Home Dressmaking.* London, England: Edbury Press, 1977. 187 pp. ($6.20, s.p. Order from Hearst Books. Step-by-step guide for sewing: the total look, patterns, fabrics, equipment, cutting out and marking, pressing, interfacing, pockets, getting it together, hand stitches, crossway, controlling fullness, fitting, seams, fastening, collars, cuffs, sleeves, seam finishes, facings and bindings, pipings, waist finishes, linings, hems, belts, trimmings, and common mistakes and how to avoid them.)

T Trub, John E.A., ed. *The Mechanics of Cutting and the Modern Cutting Room.* Great Neck, New York: Kogos Publications Co., n.d. 78 pp. ($8.95, l.p.; $6.95, l.p., in Spanish. Factors affecting cutting operations and results, production planning and piece goods control, sponging and shrinking, cutting room layout, preparation for cutting, cutting and spreading, marking, methods, tools, techniques for cutting controls and results, preparation for sewing, drilling, shade marking, ticketing, and bundling.)

T Vanderhoff, Margil. *Clothes, Clues, and Careers.* Lexington, Massachusetts: Ginn and Company, 1977. n.p. ($8.95, s.p.; $1.95, s.p., teacher's guide. History of clothes, ways in which clothes communicate, principles of design, consumer information, recycling of clothing, basic techniques in clothing construction, and career opportunities.)

ST Vanderhoff, Margil. *Clothes: Part of Your World.* Boston, Massachusetts: Ginn and Company, 1973. 275 pp. ($8.95, l.p. Clothing for girls—then and now; personal appearance, buying clothes, caring for clothes, learning to sew, alterations and repairs, and vocations which require clothing and textiles knowledge.)

Pamphlet Sources

American Textile Manufacturer Institute, 1501 Johnston Building, Charlotte, North Carolina 28281.

The Armo Company, 206 West 40th Street, New York, New York 10018.

Belding Corticelli, 1372 Broadway, New York, New York 10018.

Celanese Fibers Marketing Company, Customer Information Services Department, 1211 Avenue of the Americas, New York, New York 10036.

Consumer Information Center, Pueblo, Colorado 81009.

June Tailor, Inc., Box 125, Hartland, Wisconsin 53029.

Talon/Velcro Consumer Education, 41 East 51st Street, New York, New York 10022.

U.S. Consumer Product Safety Commission, Washington, D.C. 20207.

U.S. Department of Agriculture, Washington, D.C. 20250.

Periodicals

Bazaar. New York, New York: Hearst Corporation. ($12.00, 1-year subscription; $22.00, 2-year subscription. Published monthly. Fashion, beauty and health, travel, and special features.)

Co-ed. Englewood Cliffs, New Jersey: Scholastic Magazines, Inc. ($15.00, 10 issues. Published monthly–September thru June. Special features on child development; intellectual, social, emotional, and physical aspects of teenage girls; food preparation; fashion; to make, to buy; housing; and money management.)

Encore. Washington, D.C.: Library of Congress. (Free loan from your regional library. Bimonthly recording supplying Braille and "talking" (recorded) books and recorded tape cassettes to those who cannot read conventional print.)

Fabric Facts. Joliet, Illinois: International Fabricare Institute. ($3.50, annual subscription. Published bi-monthly. Fabric information, dealing with fabric problems, construction techniques, and care information.)

Family Circle. ($0.55, single copy; available at newsstands. Published monthly. Home furnishings, decorating, food, fashions, beauty, health, diet, and nutrition.)

Fibre and Fabric. Acton, Massachusetts: Fibre and Fabric Publishing Co. ($5.00, annual subscription. Published monthly. Advertising, book review, charts, illustrations, and trade literature.)

Forecast. Englewood Cliffs, New Jersey: Scholastic Magazines, Inc. ($5.00, 9 issues. Order from Forecast for Home Economics. Published monthly September–April, bi-monthly May/June. Co-ed magazine. Teaching techniques, special features, clothing and textile arts, health and grooming, food and nutrition, home furnishings and equipment, careers, crafts, personal development, and consumer awareness.)

Future Homemaker. Austin, Texas: Texas Education Agency. ($0.20, a year. Available only to Texas FHA. Published four times a year–August, October, January, May. Highlights from homemaking programs in Texas.)

Good Housekeeping. New York, New York: Hearst Corporation. ($8.97, 1-year; $16.97, 2-year; and $24.97, 3-year subscription. Published monthly. Home furnishings, food, beauty, health, needlework, fashions, home building and decorating, diet, and nutrition.)

Green Pages. Winter Park, Florida: Products and Services for the Handicapped. ($6.00, annual subscription. Published quarterly. A directory of products and services for the handicapped.)

Illinois Teacher of Home Economics. Urbana, Illinois: Division of Home Economics, University of Illinois. ($7.50, 1-year; $21.00, 3-year subscription; $1.75, single copy. Published five times during academic year. Order from Illinois Teacher. Teaching techniques and curriculum ideas.)

Ladies' Home Journal. New York, New York: Downe Publishing Co., Inc. ($6.99, 1-year; $9.99, 2-year subscription; $0.75, single copy. Published monthly. Food and equipment, fashions and sewing, health and beauty, home furnishings, decorating, and crafts.)

The Needle's Eye. Chicago, Illinois: Union Special Corporation. (Free. Published bi-monthly. Articles on various phases of industrial sewing.)

Penney's Forum. New York, New York: J.C. Penney Company, Inc. (Free. Distributed by managers of J.C. Penney Stores bi-annually. Curriculum ideas; teaching techniques; and special features such as value clarification, consumerism, interpersonal relationships, attitudes, behavior, human potential, and other information for educators.)

Seventeen. New York, New York: Triangle Communications, Inc. ($10.50, 1-year subscription. Published monthly. Fashion, beauty, food, decorating ideas, and special features.)

Teen Times. Washington, D.C.: Future Homemakers of America. ($4.00, 1-year subscription; $0.75, single copy. Published quarterly–September/October, November/December, January/February, March/April. Project ideas, issues of concern to teens, and leadership techniques.)

Tips and Topics. Lubbock, Texas: Texas Tech University. ($4.00, quarterly. Order from Tips and Topics. Teaching ideas and information on current trends in the field of home economics.)

What's New in Home Economics. Philadelphia, Pennsylvania: North American Publishing Company. ($29.00, 15 issues. Order from What's New In Home Economics. Published monthly–May, September, December; twice-monthly–January, February, March, April, October, November. Special features on child development, consumer education, nutrition, clothing and textiles, housing, and money management; and critique of new educational materials and teaching techniques.)

Periodical Sources

School library and local newsstands.

Teaching Aids

Basic Parts of Threading of the Sewing Machine. Glendale, California: Aims Instructional Media Services, Inc., n.d. ($145.00, l.p., purchase. One 16mm film, color, sound, 10 minutes. Basic parts of the sewing machine and their uses, threading the machine, needle insertion, bobbin winding and correct placement of bobbin in the bobbin case; available in Spanish.)

Frings, Viriginia Stephens. *Apparel Manufacturing . . . from the inside out.* San Francisco, California: Design West, n.d. ($95.00, s.p., purchase. Sixty slides, color, sound. Step-by-step procedures in garment production design, fabrics, pattern making and grading, sample making, showroom sales, cutting, factory machinery and techniques, hand finishing, and shipping.)

Learning to Sew. Glendale, California: Aims Instructional Media Services, Inc., n.d. ($120.00, l.p., purchase. Six filmstrips, color, sound, six cassettes. Structured series which guides the audience step by step through the entire sewing process from threading the machine to fully assembling an article of clothing.)

Sewing and Clothing Construction. Bowie, Maryland: Robert J. Brady Co., n.d. ($274.75, l.p., complete series with transparencies; $145.00, l.p., complete series with slides; units may be purchased separately. 156 transparencies or 162 35mm color slides. Unit I, Use of Basic Sewing Equipment; Unit II, Fabrics, Stitches, and Seams; Unit III, Preparing Fabrics for Cutting; Unit IV, Challenging Fabrics; Unit V, Zipper Applications; Unit VI, Putting in a Sleeve and Finishing a Sleeveless Armhole; Unit VII, Applications of Fastenings; Unit VIII, Interfacing Technique; Unit IX, Making Pockets; Unit X, Back Jacket and Coat Linings; Unit XI, Hemming Coats or Jackets and Lining Skirts; Unit XII, Putting on Skirtband and Hemming a Skirt; Unit XIII, Tailoring Collars; Unit XIV, How to Use a Pattern; Unit XV, Sewing with Stripes; Unit XVI, Types of Tread and Stitching; Unit XVII, Seams; and Unit XVIII, The Wardrobe.)

Sewing by Sight and Sound. New York, New York: Butterick Publishing, 1974. ($97.00, l.p., purchase. Twelve lessons, six flipcharts, six cassettes, twelve fashion patterns, teacher's guide. Seams, seam finishes; darts, cut-in-one casings; centered zippers, invisible zippers; shaped facings, all-in-one facings; set-in sleeves, raglan sleeves; hems and hem finishes; and fasteners.)

Sewing to Fit. New York, New York: Butterick Publishing, 1976. ($85.00, l.p., purchase, with record or cassette. Four filmstrips, color, record or cassettes, 20 spirit masters, teacher's guide. Pattern selection and adjustments for boys and girls, making accurate body measurements, analyzing body structure in order to choose the right figure type and pattern size, recognizing flattering fashion styles, and understanding when a garment fits well.)

Talon Thread and Needle Kit. New York, New York: Talon Education Department, n.d. ($1.00, l.p. One resource kit, 25 "thread" student leaflets, 15 "trouble shooter" cards, 3 project sheets, 1 poster. Thread construction, thread types and selection, and a basic guide to good hand and machine sewing.)

PUBLISHER'S LIST

Aims Instructional Media Services, Inc.
626 Justin Avenue
Glendale, CA 91201

American Printing House for the Blind
1839 Frankfort Avenue
Box 6085
Louisville, KY 40206

Arco Publishing Co., Inc.
219 Park Avenue, South
New York, NY 10003

Bennett, Chas. A., Co., Inc.
809 West Detweiller Drive
Peoria, IL 61614

Bobbin Publications, Inc.
Box 527
1110 Shop Road
Columbia, SC 29202

Brady, Robert J., Co.
Routes 197 and 450
Bowie, MD 20715

Burgess Publishing Co.
7108 Ohms Lane
Minneapolis, MN 55435

Butterick Publishing
Box 1945
Altoona, PA 16603

Chilton Book Company
Sales Service Department
201 King of Prussia Road
Radnor, PA 19089

Coats and Clark Inc.
Box 1010
Toccoa, GA 30577

Design West
1908 Baker Street
San Francisco, CA 94115

Downe Publishing Co.
641 Lexington Avenue
New York, NY 10022

Fibre and Fabric Publishing Co.
Box 401
Acton, MA 01720

Future Homemakers of America
National FHA/HERO Headquarters
2010 Massachusetts Avenue, NW
Washington DC 20036

Ginn and Company
A Xerox Education Company
191 Spring Street
Lexington, MA 02173

Hearst Books
250 West 55th Street
Room 603
New York, NY 10019

Hearst Corporation
717 Fifth Avenue
New York, NY 10022

Home Economics Instructional
Materials Center
Texas Tech University
Box 4067
Lubbock, TX 79409

Illinois Teacher
351 Education Building
University of Illinois
Urbana, IL 61801

International Fabricare Institute
Box 940
Joliet, IL 60434

Kogos Publications Co.
77 Maple Drive
Great Neck, NY 11021

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Library of Congress
Division for the Blind and Physically
Handicapped
1291 Taylor Street, NW
Washington, DC 20540

Lippincott, J.B., Co.
521 Fifth Avenue
New York, NY 10017

The McCall Pattern Company
Educational Department
Box 9119
Manhattan, KA 66502

McGraw-Hill Book Co.
1221 Avenue of the Americas
New York, NY 10020

Macmillan Publishing Co., Inc.
866 Third Avenue
New York, NY 10022

New Jersey Vocational-Technical
Curriculum Laboratory
Rutgers University
4103 Kilmer Campus
New Brunswick, NJ 08903

Penney, J.C., Co., Inc.
Educational Relations
1301 Avenue of the Americas
New York, NY 10019

Prentice-Hall, Inc.
Englewood Cliffs, NJ 07632

Products and Services for the
Handicapped
641 West Fairbanks
Winter Park, FL 32789

Random House, Inc.
201 East 50th Street
New York, NY 10022

Richards, Frank E., Publishing Co., Inc.
Box 66
Phoenix, NY 13135

Scholastic Magazines, Inc.
902 Sylvan Avenue
Englewood Cliffs, NJ 07632

The Singer Co.
Box 1558
Murfreesboro, TN 37130

Steck-Vaughn Co.
Box 2028
Austin, TX 78767

Sterling Publishing Co., Inc.
419 Park Avenue, South
New York, NY 10016

Talon Education Department
41 East 51 Street
New York, NY 10022

Texas Education Agency
Homemaking Education
201 East Eleventh Street
Austin, TX 78701

Tips and Topics
College of Home Economics
Box 4170
Texas Tech University
Lubbock, TX 79409

Triangle Communications, Inc.
850 Third Avenue
New York, NY 10022

Union Special Corporation
404 North Franklin Street
Chicago, IL 60610

Walch, J. Weston, Publisher
Box 658
Portland, ME 04104

What's New in Home Economics
134 North 13th Street
Philadelphia, PA 19107